aatcctcagc tctgtctcca agatgactgc tttgccctca gtatcttcag cttctgggtc 240 cggggctgga tcaatctcaa tgatggtctg cccatcctct gaggtgcttt caacagcctg 300 aattgccgag gttaggccgg actccatggc caccaattcc acagggctaa ccatggtggt 360 catgttgccc agtgtactcc catcctgcat ggcagtagag ctcagcagcg ccaagctaga 420 tgaagggtgg atggtcattg tgtctggtga gctgctcttg gcagaagaga ccactgtggc 480 ataacggaaa aactnaaggg ncaaaaagca tgtgtggaca ggccaggatg gancctggtt 540 aaggtggccc tnggaatttg nccctngnaa a 571

<210> 5657

⟨211⟩ 572

<212> DNA

<213> Homo sapiens

<400> 5657

aaggcagggt cttactctgn ctcccagccc ggagtgcagt agtgcaatct tagctcattg 60 cagttttgac ctcccaggct caaataatcc tcccgcctca gcctcctaag tagctgagac 120 tacagetgtg egecaegaea tetagetaat tatttgtttt ttgtagagat gaggteteae 180 tgtgttgctc aggctgggta ggtgtctaac tcctaggctc aagtgatcct cccacctcag 240 cctcccaaag tgctgggatt acaggtgtga gtcaccgtgc ctggctttgt ttaaggcatt 300 ctttttccgc agcatctgtt accagcagcc tgaagccatt tctataacaa tatcaggaag 360 420 acacatggac agagacccta atgtatgaaa aatgcatcaa ttatttgaga ttaatgagtc ctcataaaca gagactgaga ggctctaact ttcctncgtt atgtgaagag taagaacnag 480 acacttctcc tgtcctttgg aanggtgtta tgcatctaag ggattaaatt gcaacaatgg 540 572 ctttaanacg gagggggaa aacattgggc nt

<210> 5658

<211> 577

<212> DNA

<213> Homo sapiens

<400> 5658

gtggcattca ttcctctgaa taactgtttc tttaaaacaa acaaacttgc attttagctt 60 caagggtaca tgtgcaggtt tgttatatag ataaactcat gtcacggggg tttgctgtac 120 agattattta titcatcaca caggtactaa ggctagtgac caatagttat titttccgat 180 cctctccctc cttccaacct ccacccaact ctgtttctga aagaaggaaa gaaagaaaga 240 300 aagaaagaaa gaaagaaaga aagaaagaaa gaaagaaaga aagaaagaaa gaaagggccc 360 agagaggaca aagtatttgt ctaaggccat actgttatta agaggtagaa ccaagaccta 420 cactaactct gcaaatccaa tttctgtcca cagtgccctt gagatcagaa tgatactcac tccatttctc taaaagctac aaatgaaact cttcttatga gtaaaaagta ctaacccaaa 480 ttggattatt actatagtgg tctcgcaaaa tttagaggga tgttcanagg gcaaagattg 540 577 agaaccctgg cttaatcttg tangggtgaa tgtncnt

<210> 5659

<211> 530

<212> DNA

<213> Homo sapiens

<400> 5659

60 gtagggacag ggtctcactc tgttgccagg gctggtcttg aactactggg ctcaagcagt cttcctgcct caacctccca aagtgctggg attacaggca catgccactg tacccaaccc 120 aggttcatgt ttttatagtt cattttgatt tttcattttc catccctgat ctttagagaa 180 tttctgttca tgcagctctg tcaccccttt gcttgggtca gtctgactct gtcttcacca 240 gttattatct tggaagcttg agacagtttc cttatctgaa cttgcaggtc gcagaccttt 300 gagtttgggt tgcttggcag taggtggcaa gttacttaac ttggccatgc ctgatgctat 360 ggtctgaatg tttcccccaa attcatgtgt tggagactta atccccaatg caacagtatt 420 gagaggtggg gagtttggct cctttttgcc ctcctggctt ttgccatgtg agggcaccgt 480 gntcttcttt ttcagaggat gcnncatctt nggggnantt ttggganaaa 530

| <210> 5660 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <211> 573 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5660 | | | • | | | |
| aacaaaatgg | cccctaaaca | aacaccaaca | acttcacttg | gtcttcaaac | aaagaaacag | 60 |
| tcttttttc | caacatagga | ggaaaagcta | cttgttgtgg | atgtacaggt | ttccaacatg | 120 |
| gcacccttct | aaagggcttt | caaggatcat | cctaatagcc | cattttacct | atgtactgac | 180 |
| cttggaagct | aacccctgag | tatgatgcaa | ctccactcta | atgtaaatta | aaatgccatg | 240 |
| atcttaaaaa | tgccataata | ttgtcagtat | aatttaattt | ccagtttagt | tccatcttca | 300 |
| catttagcag | tgtgtgtctg | tggccgtctc | ctggtgccag | catttcagaa | tgtactatca | 360 |
| ctggctgaga | aaatctcacg | gtgagaagag | tagtgtgtca | taagatctga | acaaaaaagc | 420 |
| taccaaagtc | gatcagtctc | agtatgattc | anggatatga | ttttcaatta | gcaaatggtg | 480 |
| ccactgaagc | anaaagtggc | tttgttttgc | tacacccagn | gctnccagga | atttcctgng | 540 |
| gcctcctttc | atgggtttnt | accctggcag | gtt | | | 573 |
| | - | | | | | |
| <210> 5661 | | | | | | |
| <211> 575 | | | | | | • |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | , | | | | | |
| <400> 5661 | | • | | • | • | |
| aaaggcatgt | caaaaagaca | ttttacttcc | ccaaagcatg | gccccaagaa | gccattatta | 60 |
| taatagagta | tgaatttctg | ctgcaggtta | ttagcctata | atactaacaa | taaagtcctg | 120 |
| cttaggacat | aaaggcttac | actgggacat | gaagtagtaa | gacacaatcc | actgactatt | 180 |
| ttaaatttgc | tgtacaccta | aaccatcttc | tccattatac | caatctctgt | gtgtgtgtgt | 240 |
| | | | | | | |

gtgtgtgtgt gtgtgtatac acacgtcctc tttcagtaga acataaactc tgaagatgag 300

gtaaaataca atacagctgc tgctgctgat gagctgtctg agtttctgca gacaatctgc 360

aaaaaaatgg aagtteteaa ggeecagttg etggtgtete ttttgaggee eeaaaacttg 420 gttgatttat ettattggea etetgeatga aateaagagt aggeteaaag geaageetta 480 teteetgnga acacaattee tacaggtetn aacteaatat ttaaatttng ttgggacetg 540 gntneaaatt ggaacttett aaangatttt aaaag 575

<210> 5662

⟨211⟩ 483

<212> DNA

<213> Homo sapiens

<400> 5662

60 aaatagagac agggteteac tgtgttggee aegttggtet tgaaetetgn ettgtttgtt 120 gcgtgtcctc agctgggctg caacctctgc ctcccgggtt caagcgactg tcccatccag 180 cctcccgagt acctgggact acaggtgcag gccaccacac ccggctaatt tttgttattt 240 ttggaagana tggggtttcg ccatattgcc caggctggtc tnaaactcct gacctcaagt 300 gatcctccca cctnggcctc ccaaagtgct tagaccacag gcccaagcca tnatgctggc 360 ccanagtage tttcaataaa etetntttge aetgtaettt negaetegne ttgaatteet 420 tcctgtatga gatccaagaa ctcttttggg atctgatcan gaanttnttt cccagnatat 480 483 aag

<210> 5663

<211> 586

<212> DNA

<213> Homo sapiens

<400> 5663

agacttttat ttttatttta cttgtttgga cagaaaagaa aattcatcag ctttcattag 60 agtctcctta agtgttggaa acacattaaa ctcaggaata gtggaccttg tagaaaagca 120

180 tcacaaatta aaaatatatt tctccatgtg gtaaaagtgc tttcaatccc attaaagggc acagcaaggg tgtttggaaa cacgatctga aatttggcct gcaatccgtg gcatcgattc 240 caaccacagg gcgggggagt caccatgatc tagagcacag gagccacgtg gggcccggag 300 catgcggaca gcaacactcg caataactga gtgaggacga ggcccatagc ctgagtagaa 360 420 tagattctgt atttgtaaaa aatgaggtgg ttacatcaac tgggttgaag ggggactggg taatcccaga aattccttgt ttctggtctg tggggatggt cagatctgcc caccactctt 480 ggcacccgan gcttncctgg agacgcatna acctgggntg ggaaagtgcc canatcttgc 540 586 tgggggaaca caaccttcgt tgccatgccg gcacccagcc tttcnt

<210> 5664

⟨211⟩ 587

<212> DNA

<213> Homo sapiens

<400> 5664

gtttactatg cttttattta tactatttgc acagtgagca tatttacaaa tgtgttccat 60 tacaagacat cagacacaag ggaaagacag aacaaatctg taatcttctt ccactcacac 120 tttactggtt attccaaact ttcaaagaac agcctctcag tggtactttc tatccatcac 240 acaacatgac acaaagactt catttaataa ggttagcaca gctgttaata tcaaatgcca 300 acgacagaaa aaaataacat aaacttttcc tcaagtatat atttaaacat attgtgattc 360 ttagtcaaca gtgttataaa atgaatacaa gataacaata tctatagcaa acactacttt gcagtttaac aattagcact ggtcacaaat accaaataca gtgccctccc caccctccac 420 480 aaccttttga attcaggacc ctgcctatct actccatgga gcagatcttt ggattctctt ttccactcct aagggtttgc ctaggatctc tctatggngc agaatacccc ctagcacccg 540 587 aattggggaa taggcttaac cttgnatnat catctgaatc ccagcat

<210> 5665

<211> 572

<212> DNA

<213> Homo sapiens

<400> 5665

gagatggaat ttctttcttg tcgcccaggc tagagtgcaa tggcgtgatc ttggatcact 60 gcaacctctg cctcccgagt agctgggatt acaggtgccc gccaccacgc ctggctaatt 120 tttgtatttt aagtagagac ggggtttcac catgttggcc aggctggtct tgaattcctg 180 240 acctcaagtg atccactgng ctcggccaga attatgtaga atttctaatt gaacaaaagg 300 aatatctgtg agaaagaatc caagctgtct gcaattgcta ttatattaca tataataaca actgcaacag ggggattcca gctgtatgtg ttcaggttaa ctgtgtcaag acattccaac 360 420 acatattcat tcattctaac gtatgacaaa aacgctagca gatcaagtat gtatgcctat ggaggaccc tgggatacat agcantgctg agcatcctta aaaangtttt tctaactgga 480 gccattggtc tttggggnca acangttntg acatcccttg gggcaccttc cccttgactt 540 tttnaaaagg ncccaancta cttttaaaga nc 572

<210> 5666

<211> 586

<212> DNA

<213> Homo sapiens

<400> 5666

agtaaaatgc ctactaatgc caaattcatc ctccattata tctttcaata gcttgtattt 60 aataagctta tgtgatgatt ccttcaggct tatggggaaa aaaaatgtct gcaaattaag 120 ttacatgett egeceteege eeeetgeeee aateaaaaat gatacaacea agttttggte 180 tctctgtcag atgccaagag aattcttggc aagttttggt tcaaatgcag ctttcctcaa 240 catccaatca tttctccctg ctctgacacc tgtcccctct ttctcagctt ggagtttttg 300 tttcagaatt gtcttatccc tatgatacat ccatttgtac ttctatatcc cactttaggt 360 aattaggttt tagagcccac aggaatcaca attcacatgc tgttgctaag ttctgtgcca 420 ttaagccaaa attgctatct accaaagtat ttaagtcctt atgaagagta ttccaagggt 480 540 ttcatgcaat gtganggtcc attgcaaata ttttgaactg agtttggaca aagagtttna

agngggaacn cagattttcc ccaaggnggg aaaggaaggg cagggt 586 ⟨210⟩ 5667 ⟨211⟩ 530 <212> DNA <213> Homo sapiens <400> 5667 catctttaaa ttaatgtctt tactaaaggg ttagaatgat ttcagaagga aattacaatt 60 ttgaagggaa aggaaaagac attgaaatta caggtttcag aagaagagct tcctctgact 120 ccagctttgg ctctcctgcc ttgggatccc caacccaccc ccaagcaccc ttgtatgcat 180 tcctcaggaa gagggatgtt gttctcagtg ttttcctctt ccatccgngc ctcaaactag 240 gcagcttcca atggtgccct gggcttcana aggtggccac tgagctgacc tctaggcttg. 300 caggetgaat ttetegteag caetteagga teatgatete taacaeteat ettetetetg 360 cacactcagg gttggggtgc agccccagct gaggtcccag ggncagtggg tggatgtggg 420 ggcaagggag ctggaanaac actngagaga cagcaggtaa attgagacat ggctttattn 480 agcagccctt ttanagggtt aagggtncca tttttcnntt cacaaaccct 530 <210> 5668 <211> 470 <212> DNA <213> Homo sapiens <400> 5668 aaagaaaaac aacagaagag aaggctgatc ccaagctaca gggttttttt gtttgtttgt 60 ttgtttgttt gttttggaga cagtctcgct ctgtctccca ggctggagtg cantggngcg 120 180 gncatagete aetgnggget cagacteaag etcaageaat ettettatet tgeettteta 240 attgctggga ttataagcat gagccactgc acctggcctg tgngacgtaa ttctgatgtc

300

aactccctga tgttacatca aatgccacag gttaaggcca ccagcccccg ntaggctgcc

ctcgcttcag atgcagctgc aagcttgggt gtccacagac cgnatgtact tttcaccaac 360 tggctgcaaa tttggaggtt cccaccacgt cctcaggttt gataattcac catacaaccc 420 acagaactct gaaaagcatg anctttcnnt ttcnntattt gagacannag 470

<210> 5669

<211> 586

<212> DNA

<213> Homo sapiens

<400> 5669

gagtaatgat atggtttaga tctgtatccc cacccaaatc tcatgtttaa ttgtaatccc 60 caatgtggga ggtggggcct ggtgcaaggn gactggacca cgcaggtagt tnctcatgaa 120 tgatttagca ctgtcccct actgctgtct cgtgatagag ttctcatgag atttggttgc 180 ataaaaagtg tgtagcacct cccctctctc ttttcctctt gctctagccc tgtgaagata 240 cctgctctgg ctttgccttt tgccatgagt aaaagctccc tgagacctcc ccagtcatac 300 ttcctgtaca gcccatggaa ccatgagcca attaaacctt tnttctttat aagttaccca 360 gtctcaggca tttctttata gcagtgtgag attgaaccga tacaagacaa caataacaaa 420 aagtagataa atatgaaggc ccgagaaatg gcaacttett acgaagggaa agetgttate 480 ctcaagcaag tcaagttgag ggactatcct gggagctatt tttccgngcc ttggtttnca 540 cttataccgg gaagtatgcc cntggnggnt taaagttggt ttantt 586

<210> 5670

<211> 572

<212> DNA

<213> Homo sapiens

<400> 5670

aatcaggttt gtgaaaattc agatggccta tgggtgagct gtcactcagt tgccaaactg 180 nettaatett ettttgacea etatatattt eeaeteteea tttetgtgge tteteaettt 240 gatataagtt ctttacagca gttggtctga ctggcagctg aaaaatgtgt tgctcatcaa 300 gaggattttg tttgtaatac tttatgcaga tctgtgttaa agaaaagagg agttcatgtt 360 gagatttaat gaaaggcatg caactgacta atatttctag aatatggggg agtttttgga 420 cacgataaac ctgttcttgn atatctactg atggagcant gaagtattcc aaatgattca 480 aagatcaagg teetggneta tgaaaaaeet ggttaaaeet tnettaagtn ggeeaaaeea 540 572 tttccaaagc cnttgaccgg aatngccccc ng

<210> 5671

⟨211⟩ 492

<212> DNA

<213> Homo sapiens

<400> 5671

gagacagggt ctcactttat tgcctagact ggagtgcagt ggcatgatct cggcccactg 60 caacetetge tteecaggtt caageaatge teetgeetea geeteecaag tagetgagae cacaggcaca tgccactaca cctggctaat ttttgtagag atggggtttc accatgttgc 180 ccaggctggt cttgaactcc tgagctcaag tgacccactc acctcggcct cccaaagtgc 240 tgggattata agcgtgaacc accatgcctg gccaagtaat ccatttttt tttttttt 300 tttttgagat ggagtntcgc tctgtcaccc aggctggagc gcaatggcgg catttcggct 360 cactgcaage teegetteeg ggtteaegee atteteetge eteageetee caagtatgnt 420 gggactacag gngcccngca ntacgcccgg ntaatttttg gatttttagg ananacgggg 480 tttcaccgtt ta 492

<210> 5672

<211> 604

<212> DNA

<213> Homo sapiens

<400> 5672

ggttaattac cccaatgttt tattaaccat ctatagaccc atgagggaca gcaaatttga 60 ttaggcttct gtattcaaat ccattttcat gctgctgatt catacctgag gctgggaaga 120 aaaaaaggtt taattggact tacagttcca catggctggg gaggcctcag aattatggcg 180 ggaggcaaaa ggcacttatt acatggcggt ggcaagagaa aatgaggaag cagcaaaagc 240 agaaactcct gataaaccca tcagagcttg tgagacttat tcactatcac gagaatagca 300 360 cggaaaagac tggctgccat gattcaatta cctcccctg ggtctctccc acaatacatg 420 tgaattctgg gagatataat tcgagttgag atttgggtga ggacacaccc aaaccatatc acacccetge geeeteegaa ttteatgtee teecatttea aaaccaateg geetteecaa 480 cagtetteca aagtettaet cattteagea ttaaettaaa aggteeacag acceaaggtt 540 600 tatctgagac aaggcaggct ttttcaccta atgggcctgg aaatcnaaag ccagctngtt 604 cntn

<210> 5673

<211> 614

<212> DNA

<213> Homo sapiens

<400> 5673

aaaaaagtat gagtgtacag tggagtgttc cagaggttac atggtgtgct aaccacaaca 60 gtctgacgta gatctgagaa tcttctatta aaccaggcat taaaaagatt tgcaaaaatg 120 caagatgtca ctcttatcat ctatgttaac atgtaatgga tttatttttt gtttttggaa 180 aaaaaaacca agagaaaaga aaataaagtc atctttagtt tccttaaatt caaagtctga 240 gcctgaaaat ggaagtatca aagctgatgg ttatacgtca gtgagaaaaa aatttaaacc 300 aagctgggtg ggtctttaca tgagataaac tatctacagg aaagaatgac cactaacttc 360 tgcataataa atgagagtgg atcttttaat tctgagatgg caatgtactt tacaaggacc 420 atttacagac tacatcaaac ctttttctag ataaaaaacg tacttcagta acttgcctga 480 540 attgagagag ccaaaccagt ccggagagga aaacttaaaa tgtttccaca ttatcaagcc

| cccttnagaa | gtcctggggg | ncctnggccc | ctccntttga | ccanaggtcc | ggttggcaca | 600 |
|------------|------------|------------|------------|------------|------------|-----|
| gtccancngg | tttt | | | | | 614 |
| | | | | | | |
| <210> 5674 | | | | | | |
| <211> 601 | | | | | | |
| <212> DNA | , | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | • | | | |
| <400> 5674 | t. | | | | | |
| cgaggtggag | tttcactctt | cttgcccagg | ctagagtgca | atggtgcaat | cctggctcac | 60 |
| tgcaacctcc | acctcctggg | ttcaagtgac | tctcctgcct | tagcctccca | agtagctggg | 120 |
| attacaggcc | cgtgccacaa | tgcctggcta | atttttgtat | ttttagtaga | gatggggttt | 180 |
| tgccacgttg | tccaggctag | tctcgaactc | ctgaactcag | gtgatccgcc | tgcctcagcc | 240 |
| tcccaaaatg | ctgagattac | aggcgtaagc | caccgtgtct | gacccatttt | attattattt | 300 |
| atctgcatat | tcaaggaaaa | aaatataaat | tttagattcc | tctggctcat | aataggcttt | 360 |
| cttgaagaga | aaaatgacgt | gcaagaaata | actggagcca | ttaaaatata | ttttattttt | 420 |
| ccttatttgt | agttattaac | agaaaaaatg | ctctaatagg | tacctaatgg | aagttgcaga | 480 |
| tgtgattatc | aagttgaaat | gaatatttac | tcaaacctgt | aaagggcttn | gcttttctgg | 540 |
| caatatttaa | tgaaggatgc | cattagcatt | ttaacttaca | ttctttcatt | aaggtccang | 600 |
| g | | | | | , | 601 |
| | | | | | | |
| <210> 5675 | | | | | | |
| <211> 533 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | • | |
| | | | | | | |
| <400> 5675 | | | | | | |
| aaccaaaaac | aacactaaac | tttaatggca | tactgtagat | ctgccaaaat | gaggcaaatg | 60 |

cagaacataa tgacggtatc acaaaaatac atttttaaat ggtcaattta gaaagggtac 120

ttttgtataa aggttcagta aatcatttga caagtatttt taaacagtaa attttgtaaa 180 gtgtgaagtc tatggaaatg tcaacacaag gcacattagg ttctgaatga ccacaaaagt 240 ttaaaattag ctaaaaaggg aaaataaata ggttttaaag tgnaaatgca gtaagttctg 300 tatgttcact atttactttc ttagttttca ttccttctac tgtaatgtta tgataatgtg 360 agatctacat cagaattggt aggaaaaaca gcttctctt tctgtcacct caacaaaaga 420 tactttaaat ctgtactgtc taatacagta gccactaggt acatgtagct atngagtact 480 tgaaatatgg ctagtgacat atgataanac ttgactatac tgggtgaann nnn 533

<210> 5676

<211> 608

<212> DNA

<213> Homo sapiens

<400> 5676

aacagtttca ttgaaataga attcacatac catacaattc acccatttaa agtgtacaat 60 tcagtggttt ttagtatatt cacagatatg tgcaatcatc actacagtca attttagagc 120 attttcatta cctcggaaag aaactctgta ccctttagct attcccctgc ccacccatgc teccaecete agetttaaac agecagtaat etaetttetg tetgeataga tttecatatt 240 ccattcattt gaatgcaatc atataacata tggtcttttg tgactagctt ccttcactta 300 acataatgat ttcaggatcc attcatgttg cagcatgtat cagtacttca ttcttttata 360 taccataata taccattata tggataccat attttacttt tgcatgtgtc agttgatgga 420 cattigggtt gittccacci titiggigati cigaataatg citcigtaaa caaatgigta 480 caagtttctg tgtggacata tggtttcatt tctcttgggg atatacctaa gtannagaat 540 tggttgggnc ataaaagtaa cctngatggt taatcacttg gnggacctgg ccanatngtt 600 ttccaaag 608

<210> 5677

<211> 610

<212> DNA

<213> Homo sapiens

<400> 5677

acctttaagt gaggacaatg gcacttaata aataggactg ttgtgaaaat taaatgagta 60 gatacatata aagcagtcag aacagagcct ggcacacaat aagtacaatg tatgtgttaa 120 ctagttgcaa tagtggaact ggaagactag tagtaggtag catatcaagt tgtataaaac 180 240 cttgagccaa atatgggaat ctcataataa accttcatag agttatcatt cttagcctct 300 ataatacact catggctaat gtaatgcaca gaaaatcaag ctaaacaaac tcaataattt 360 cacagcaagt aggtatatet attitactic tgggatagag tgaatggtig aatcagcata actccacagt ttttaattga agaattttac cattaatggc cactggaaca ggacactgac 420 480 tatacttttc agctaatggg atgggctcca gagaccacac tggatgttgc acaaacaact 540 ggatgtgtgn tttgggcatc attaaaataa aagttaccat ggtaaatacg gcagaaaatc ttgcattgga aggagctttg ncagcatttg cagcttggac attttatggc agcagaccag 600 610 ttggtaacng

<210> 5678

<211> 602

<212> DNA

<213> Homo sapiens

<400> 5678

60 agacggagtc atgctctgtc acccaggctg gagtgcagtg gtgcattgca acctccgcct 120 cctgggttca agcgattctc ctgcctcagc ctcccgagta cctgggacta caggtgcgtg 180 ccaccatgcc cggctaattt ttttatattt ttagtagaga tggggtttca ccgtgttagt 240 caggatggta tggatctcct gacctcgtga tccacctgcc tcagcctccc aaagtgctgg 300 gattacaggc gtgagccatg gcacccggcc cacagattct gcttttaagt gcagaagtat tttaacaatg ggagacggaa taaacgggtc ttacctactt cctttccttc ttaaacgatg 360 420 tactctaaag cagagggtcc ctttagtgat gaatccagat gctgctgtca tcaccccaga 480 taacagaaac tggcaacagg gagccctggg cagctgcaag tgacacccac tcctgncccc

| tcagactcaa | tggncctagg | agctctgcaa | tacattggct | tactatacct | tcctttctta | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| ttggccaata | naagtttcct | nattcccaaa | tnttaaactt | ttccaacttg | gacttttatt | 600 |
| ac | | | | | | 602 |

<210> 5679

<211> 605

<212> DNA

<213> Homo sapiens

<400> 5679

| atttgagata gagtc | ttgct ctgtcgccca | ggctggaatg | cagtggcgcc | atcttggctc | 60 |
|------------------|------------------|------------|------------|------------|-----|
| actgcaatct ccgcc | tctca ggttcaagtg | attttcctgc | ctcagcctcc | cgagtagctg | 120 |
| ggactacagg catct | gccac caagcccgct | aatttttgta | taaaatacaa | aaattttaag | 180 |
| tataaaatac ttaaa | aagta gagacgggat | ttcaccatgt | tggccaggat | tgtcttgatc | 240 |
| tcttggcctc gtgat | ctgcc cgcctcagcc | tcccaaagtg | ctgggattac | aggcatgagc | 300 |
| caccgtgctc ggccg | acctg gggctctttc | ctaagagaaa | agtccacacc | gaggcagacc | 360 |
| tgcacagccc ccagc | acagg gaaacggcag | caagtgtgtg | tgaaggcagg | aatggcgctg | 420 |
| ggatgccctg ccatg | gaacc gctggctcac | agcagactca | cgcttgtggg | cagtgcttgc | 480 |
| gacggacggg acttt | gacgt ggctcaaggc | aagttcttnt | caantncaag | aaggaaaagg | 540 |
| actttccggc aaggg | gccat naccggacaa | tggttggctt | ggatgggatg | ncctgaggag | 600 |
| gcatg | | | | • | 605 |

<210> 5680

<211> 357

<212> DNA

<213> Homo sapiens

<400> 5680

ctccagtgcc agaaatgatc aatgatgaag tgggggttgg gcagctagct ggctggagag 60

gtgagccaaa ggaacccagg agtggacacc tgagggagtg gggtctcaga ggaactgggc 120
agagctaaat gggctaagtc ttaagaggca ggggcaggaa atgtaatgga ggctttctac 180
tctacaacgt ccaatcctgc tggggagggc atggagtatt tcagagtagg aaagaatgag 240
ggagaggata gtcacgataa atcaangttt cattctttc ctcctcttc ttagctcgnc 300
aaancctacn ctttctccc agctggaatt atggtggtga ntgagggagg taaacnn 357

<210> 5681

<211> 596

<212> DNA

<213> Homo sapiens

<400> 5681

ggacatetea gatgtgacte ttgetgeeag getagaattt aggetatgtg ataattetea 60 gctgtcctac aatgcctgct tcttgaaaga agtcggcact ttctagaata gctaaataac 120 ctgggcttat tttaaagaac tatttgtagc tcagattggt tttcctatgg ctaaaataag 180 tgcttcttgt gaaaattaaa taaaacagtt aattcaaagc cttgatatat gttaccacta 240 acaatcatac taaatatatt ttgaagtaca aagtttgaca tgctctagaa tgacaaccca 300 aatgtgtctt acaaaacacg ttcctaacaa ggtatgcttt acactaccaa tgcagaaact 360 420 gggtttgttt tcctctctaa aaaacaggat gtgtcaaaat gataaatatt ctaagattaa 480 agtggcaatg ctcagattcc caatcttacc agntctggga ttcactctgg cctcctagaa gactgagggg aatatgctgg acttacatgg ccatggaacc ttccttcttc tagaaaccca 540 596 ageggtatge ngaateatta tgeneaeatt eeegenggaa aaaagggttg accetn

<210> 5682

<211> 598

<212> DNA

<213> Homo sapiens

<400> 5682

agaaaatagc ttatgttaca acaaaaaccc tataaaaaca ttcatcccag caaaagcctc 60 cagggctgga gggtgagggg aaaagtttca aagcacgtgg atagtccaga tctgggatgc 120 cctgtcctca tccggctccc atagcaccac gtggtcccgg tcgtagcccc ggcctccctt 180 cacgtccagg atctggcctt cgaacatctg gctgcagatg tggcccgatt cactgatgct 240 ccacgtctgg cgcggcaggc ggctctcggc ccacagcacc ggggcccttc acgacctccc 300 tctgggtaaa ggggaggaca gggacatttt cagagttctg aacaaactta ttccttgggg 360 acgatggagc agaaagacct cctgggctgg ggacatcctt ccttcttgta gtggatggag 420 cangaagttg tecagggact gneacatget egettetnae catgggeagg aeggtggeaa 480 caagggggtc cacgggccgg cctttttaa ggggcagaac aaggggagtg aanccgggcc 540 598 ccgggtgaag nggcaccaca ggttgttttc anggggaagt taggcccgaa angggcct

<210> 5683

<211> 588

<212> DNA

<213> Homo sapiens

<400> 5683

gatgcatgag gataaacatt cttggaagga cgcgtgtgtt ctgtgatatg tcttgattgg 60 ctgggcggtc aggattgcgt atggttttgt cattgcatgc ttttgtcttg tgtgtgactg 120 agtgaaaata tggtgatagt gtgggcaatg gtgtctgtgc agagtcccct cataggaggg 180 acatcagage agecectect caccagtage taccecagea cecteagaa getattett 240 gggggaagat gcagaaagaa atgaagtctg ggtacatgtg tacttggcag gcaagaggag 300 agattcaaca accccagaga gaccaggaca aaacaggctg gtgacaaggg acaccctctc 360 acccagctag agagaggccc tgggatacga gcaaagaggt tgcagngtct anatgatttc 420 aagggetgng tttaccaaat gtttgeetgg aaaccageet gagtgeetnt ettgeeceaa 480 aagggagate teantgaana ettgnggtne caagecaggg eeteaagett aatttaaage 540 588 ccccctttc ttccaccacc agcccaannc aggacctttc ttccncca

<210> 5684

<211> 585 <212> DNA <213> Homo sapiens

<400> 5684

gaagtingat aacaaagaaa tatatataag acaaaaatag acaagagita acaataaaaa 60 cacaactate tgttgacata acatatggaa actttttgte anaaagetae atettettaa 120 tctgattgtc caaatcatta aaatatggat gattcagngc cattttgcca gaaattcgtt 180 240 nggctggatc atagattaac attttctggg agaaaaaaga aaaagagata tttatttagg aaataaacca ttttttacaa aaateteeat aaaaceteaa ettttetaca ataaaceaaa 300 360 actaatactt tcagngaata tctattaaat gagcatttcc attagtttaa cacacaaang 420 tetectecce tacattteae tettgaggte tagaataact tactetgtaa atcatagata ttctcaataa cctctttttg ttatcaatta cggtaagact caagcatcca gaaatagctt 480 taaactggga cccaaatntn ggaaggangg ctagttaata tattacattg ggaataaacg 540 ggncccctgg gttattacac cattcttgga aaggcattaa cttgg 585

<210> 5685

⟨211⟩ 602

<212> DNA

<213> Homo sapiens

<400> 5685

ctcacttctc ttggaattac tgtatacctt tttatgattc cattttatct ccttgttggt 60
ttattagctc taactctatt gcggcccctg tgtgaacttt aaggaatatt ccctttcctt 120
ctctggcctc agatagtttt ctcacacata tgcactaacc agtacttagt taaacactag 180
ggtaggacct cctggagata gccagagtgt tctctctgtg cagctttctt ctttctggta 240
atctgccctg caaacccaaa ccactgtggc ctcttcagat tccaggtctg gctcccagt 300
tcagaggacc tccagaatat gcctgggctg ctcctcctgg ggctggtatc tggaaattgt 360
ctccaggcaa ccacactact cctcttattt gtttctatct tttgggaatc actgtcctgt 420

| gttgcctggt | gtccaatgcc | ttccaaacag | tttttcttta | aatatatttn | ggtcattttt | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| ttittcaatt | gggncatgtg | angggggtaa | ataaatcgag | gcccctttac | ttaatcttgg | 540 |
| gccngaagaa | gaaangagga | agtctcctgg | ggcnttttaa | cnctcttttg | aaacccaact | 600 |
| tt | | | • | | | 602 |

<210> 5686

<211> 597

<212>. DNA

<213> Homo sapiens

<400> 5686 €

| aaaaattcat | attgacttta | ttgactgctg | aagttcagtc | tcattcatct | tccagccttc | 60 |
|------------|------------|------------|------------|-------------|------------|-----|
| tctgatactg | tctttctgag | gcttttctac | ggtagacatc | atagaaggtc | tcctggccca | 120 |
| cgcgcacttt | aatcatgatc | cactccatcg | ttcctcccag | gacaaaaaag | aagggcagga | 180 |
| accggtagat | gccaaatcgc | tgctccttct | gaacttggaa | acagaatcgg | ctccctattt | 240 |
| ttaaagctgc | actagattcg | gtaagctcca | gatacagctg | caaatcaaga | gccatcaatt | 300 |
| tgtatgatgg | tctctcctga | gtctaacagg | tcccacagcg | catggcaaaa | gggcagattt | 360 |
| tacggtgggc | agatctagga | agtggagctg | gaaacgagaa | tgtgcagctc | actctccctg | 420 |
| ttcgggaacg | ggatgtgtgt | gtatcaagtg | acgtccaagg | cataggggag | ccagcgacgg | 480 |
| gtggcctcgt | gtgcagaata | naataaccat | ttagcataga | tctgtttcag | ggctttttag | 540 |
| gggaccattg | gnganattta | cccttgaatt | aggcnntatt | ttaaaaaaaat | cattggt | 597 |

<210> 5687

<211> 596

<212> DNA

<213> Homo sapiens

<400> 5687

gccttttggt atgcctggta attttttctt ggtagctgga catgatgtac caggtaaaag 60

120 acattetate atcetatgat taagteteag tettttagta ageatatgee tetggtgtae 180 aaacttctaa gtgtttcctc agtattcttc tcccctcttt ggtaggacag gatggctaga 240 gttgtctgga gtttagtatt tcccttctct gatgcagaag gttagagctg acaagagtta 300 ggtatttccc ttcccttggg tcaggctcta ataatacccc agcaggttag gatttagcta 360 actaatttct cctgggggca gaccttgtta agaagagcac agtgctctgg catatttcaa 420 aatggttcat ttcaccttcc ccctgccaga acacataggg atttttctgc aatatttact 480 tggagaatct aattgagctc atgtaggtaa gctaacaaaa atgggggggt tncccatgaa 540 gngggtcctc ctggaggtta aaactttcaa agtggtcata ctgaacctcc tataan 596

<210> 5688

<211> 585

<212> DNA

<213> Homo sapiens

<400> 5688

gttttgtttt gttttgcttt ttttttttt tactttaata gaataaggaa aagaaaagct 60 atttatcatt ttttttctct taattttctt ctccccattc taagcagcta gacaggtctc 120 tgngctattt tttctttcag tggatgattg cgctttaaaa cagaaaacag agcttacttg 180 tacacaactt cccttcctgg cttctttcag tcctatgaca atgtcatgga gtgaggaata 240 cgctatgtat gtcacaggag aagggagaga agctaatgct tttaagggag ataggcagga 300 gcagtagaca aagcaagact agagcggttg tccagagcca gttctcccat ggaggcaggt 360 ggtagtacct ctggaagaag tgtggaaagc tggcttccac cccagggaat attactagaa 420 catttctgga gagaggaata ggcagtagaa ccactgaact gcaaaggaat ctgnggactt 480 ggaaaataaa gtgaacttct ggttttctta accaaacttt atagcatgga ttaagnontg 540 ngcaagttaa cttcgggaaa attaaaatca cttaagaggg taagn 585

<210> 5689

⟨211⟩ 586

<212> DNA

<213≻ Homo sapiens

<400> 5689

| agtttactcc cagtcc | ttga attaatttct g | gccccagcat | taagcagaat | cttaatgata | 60 |
|-------------------|-------------------|------------|------------|------------|-----|
| ttaacatatc ctccag | acgc agctagactc a | agtggtgtat | aatcagatac | gttcctatgt | 120 |
| tctttatttg cacctc | gage cageageaag t | tctaccacct | cctgacgtcc | accagaacat | 180 |
| gccaatgaaa gcggag | tatc cttagttcgt t | tcagactgtg | cttctatatc | tccaccttta | 240 |
| tccaaaagga tttcaa | caac tccaacatge o | cctgctgttg | ctgccaggat | tagtggtgtg | 300 |
| aaaccttttt tgtctc | tgtg ttcaattttg g | gcatcccgtg | caatgagcac | agatacaagt | 360 |
| tcttcatgac cacctg | caca agctagtgtt a | aatgctgtgt | catgattgct | ctcaagtatg | 420 |
| tgcatcaatg tcaact | gaag gatacacagg a | aggcatcgat | tgggaagcca | cattgnttgt | 480 |
| agctgcgaac aggatt | caag gtggaaagac o | ctttggggtc | tgagaagaac | tggttggaac | 540 |
| caggggcact ttggna | ctta caggtgntat o | caggcattaa | gagngg | | 586 |

<210> 5690

<211> 371

<212> DNA

<213≯ Homo sapiens

<400> 5690

| gagacggagt | ttcgctctgt | cgcccaggct | ggagtgcagg | ggngcgatct | cggctcactg | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| caagetetge | ctcccgggtt | cacgccattc | tcctgcctna | gcctcccgng | tagctgggac | 120 |
| tacaggcgcg | caccaccatg | cccggctaat | tttngaattt | ttagtanaga | cggaggttgc | 180 |
| aangagctga | natcgggcca | ctgcactcca | acctggatca | cagagaanac | tgnctcaaaa | 240 |
| aacaaacaaa | aaaccaggna | tgctgaatag | caagtatgta | ggtatccact | gaagtactcc | 300 |
| naanatttt | tcaaagatga | gcatgatttt | attatagaca | atttaaaaat | atgngcangc | 360 |
| gngnataaan | g | | | | .• | 371 |

<210> 5691
<211> 588
<212> DNA
<213> Homo sapiens

<400> 5691

ataatgccat acagatattt taatgctcac aagttatttt tcgacggaga tcaacattac 60 120 attaacttga atttagtttc attattaaat tatgaaacaa gatacagata aatcttataa gcagagttct gattacttaa cacagtgaaa ttgcaattcc aagttacaga gacattcaca 180 taaagatatt cttgagctac taaataatgg ctaaatactg atgacaataa gaattaatac 240 tttccactta tgacatttgt caataacaac tctgattagg taaaaaataa ttaacatgat 300 ggtcatatta taattctaaa taaatacatt attatgtttg ccacaggagt aggtgtgtat 360 gcgtgtgtgg gtatatgtgc atgtgtgtgt attcagatgg tactgaactc aagttggctt 420 ttaaaaagga agagatcagg catattactg tgcacttatg ttatcagagt gatttatgta 480 atgctatgat gtcaaataaa acctagagtc tagtcaatta gagtaagccg agtcntgaat 540 588 ctggtgaggc tggttgggca tgggaaaagg gntacctnta ccaaaacc

<210> 5692

<211> 585

<212> DNA

<213> Homo sapiens

<400> 5692

gaatttaaag ttacaagcat ttaatggttt aatcaagcat gtagttttta ccagtataca 60 aaatgagact tagtacaaaa cggtcttcaa ctgtcacgtc agttgttcct ggagtgtttt 120 atggggaaaa gcaaacttca ccaaacatag agtaccaaca ttcaagtgct cttttccaca 180 agtttctgat tttcaactta ggagagaaga acagcattta ataactgcat cccttgcata 240 tgggatgtat gacaggctat acctgcaaga aatattcaag catgttgaat cttcatctga 300 atgatggttt tcctttatgc caaaaggcca tgtctaacct tataataaat acagcagcat 360

gagactgtac agtggttctc aaagtgtgac cccgaccagc agtgagagca tcatctggga 420 acttgttaaa aatgtaaatt attaggtcct accttaaacc tcctaaatca caagcttgct 480 ttaacaagca acctgcactt taaaacaaac tctctaggtg atctggtgca tgctaaagtt 540 tgagcttctt ataataaaat tgnaacttnn ccncaactgg gtaat 585

<210> 5693

⟨211⟩ 590

<212> DNA

<213> Homo sapiens

<400> 5693

gttgggattt cagatagagt ttggtttata aaaagcaaac agggccaacg tccacaccaa 60 attettgate aggaceacea atgteatagg gtgeaatate tacaataggt agteteacag 120 ccttgcgtgt tcgatattca aagactgttt tgctccattc cccagtgtgt ttctgtaaaa 180 240 aaggacaaaa tgtacatgat catgacatta caattactta gacaactctg acttaacaag 300 ttaaagaaaa cctttttact ctaaagaagc attcatcgtg ccatgttatt attcatgtat atgagacctg ctctacttca aagctgtaat cttcttagtt gataaacaat attcttaaac 360 aaatgccttg taaggattct tagtaaatgc agcagggcaa ttgctataga ccagtgcatc 420 ctcaggaggc ctggttccgg ccattgctaa caggtttata aatggtttat taaaaagagg 480 ataggtetet cacaatgaaa ttegetaata ttagaagtga gttttneett tggtecaaat 540 aaccataacc aaatggagag aattggaagg ttacccntta aaattttaaa 590

<210> 5694

<211> 584

<212> DNA

<213> Homo sapiens

<400> 5694

agtagagatg gggttttgcc atgttggcca ggctggtctc aaactcctga cctcaagtgc 60

teegeetgee teageeteec aaagtgetgg gattacaggt gtgagetace acacetgget 120 aatttacgcc aacattttac aaccetttca aagcatttgc tattgaaaga aggcattcag 180 240 caagatcaaa gtgccaatgc ttttcttttc taaataagag taaagaaaaa gaaggccctt 300 attacatete tagcaaataa etetatetee aaagaettag gtaagaaatt acaattette 360 agaaaaatat tetggeactg tttaaatate tactagtttt etaateeaaa aggttaacae 420 480 tttcaaagag ggcactatta ttcaattaaa gntactgntt ctcaggaatt tgagaagata tatctttttt tttttttt tcaatttata gcangaaaaa agctggggtt anccccaaga 540 atacggetta enttenecaa aagnaaattg gggeeagaaa ngna 584

<210> 5695

⟨211⟩ 578

<212> DNA

<213> Homo sapiens

<400> 5695

acgacttttg caggagtgtt ttgaagggag aggttcttga ctacaaaggg tgcttccaac 60 tggggtcact atagttaaaa cataccaagg ggaatacttt caggcacttg ataaaatgat 120 gaatgggctt ggaatggaat gaggccagat ggtagttatg ggaggggggc gccatggagg 180 gctggggact ggggaaagtt ttaagtggcg ggatcctcag gctcggactg tcactgaaag 240 aacctccctg ggaagcgctg gaaaatggga accgcagtcc tcctgcaatg ggacagaatt 300 tttctcaaat gcattgtctc acctgcattt ctttcatagt caccgatgaa tcgtttggtg 360 aggaaccgga ccaccagtgc tgcacgtcag aaaaaagaac gtcaaagtgt taaccttgga 420 agttagattg ttctccaccc caccccctgc ctggaaaaca gttctcccaa agaaagccat 480 agatggcccc aagtgaaatt cctaccctgt acttentgec ettettttea gacaaaagga 540 ggggctagaa ggcatcggga atatggcttt ggccactg 578

<210> 5696

<211> 544

<212> DNA

<213≻ Homo sapiens

<400> 5696.

| cttgttacat | gtatctcctt | gtactctgcc | ttttcttttt | ttgttgtttt | gttttgtttt | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gtttctgaga | tagtctcgct | ctgtcaccca | ggctggagtg | cagtggcgcg | atctcagctc | 120 |
| accacaacct | ccacctcctg | ggttcaagca | agtctcgtgc | ctcagcctcc | tgagtagctg | 180 |
| ggattacagg | cgtgcactac | catgcccggc | taatttttt | atttttagta | gagacagggt | 240 |
| ttcgccttgt | tggccaggct | ggtcttgaac | tcctgacctc | aagtgatcca | cctgcctcag | 300 |
| cccccaaag | tgctgggatt | acaggtgtga | ggcaccataa | cctacctaag | ttctttttag | 360 |
| aataaggtaa | ggggtagagg | gtggaagagt | ggatggatgg | atggacggca | gatgggcgga | 420 |
| tggacagatg | ggtggatgga | ggaatggatg | gacagacaga | caaagggact | gaagctgnac | 480 |
| caagcctttc | anttcaccta | accgggactg | agctcaaaca | aaggccacca | nngacncana | 540 |
| ancc | | | | | • | 544 |

<210> 5697

<211> 566

<212> DNA

<213> Homo sapiens

<400> 5697

| gt | gtgaacaa | gccttcattg | tgcaggcgtg | agcccaacaa | acaaacaaac | accaggtctg | 60 |
|----|----------|------------|------------|------------|------------|------------|-----|
| cg | ctggccga | agacgaagcg | tcctccctgg | aggtgggaac | aagtcacctc | tgaccacacc | 120 |
| tc | ctctgacg | ccatcacctc | ctcctggccc | cacccaaggg | ctcgacacaa | gccccaaggt | 180 |
| cg | gggggaga | ggggcggggc | ggaaccgagg | gcggaggcca | aggtgggatt | ccaggaaggc | 240 |
| ct | tccgaagg | atggaggtgg | gtcctgtccc | tccaggtagc | ttgtgggtgt | ggacagcagg | 300 |
| ac | ttgctggc | tcagtgtggg | cacaaggaca | ctgtgccact | ggttgagtga | gtggtgaggg | 360 |
| at | tggaggtg | gctcccagag | gcctccatct | gcatggccct | ggccctgtgg | ctccagcagg | 420 |
| ct | gccctggc | tgtgggtagc | ccaggagcca | catgcgctta | ntggggccgc | ttctggggca | 480 |

| agggctttna | caggaaagca | tgagccactg | agcccgctgg | gganggccan | gncaggccgg | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| gagcttnggg | tgcaattttn | tcctgn | | | | 566 |
| | | | | | | |
| <210> 5698 | | | • | | | |
| <211> 499 | | | | | | |
| <212> DNA | | | • | • | | |
| <213> Homo | sapiens | | | • | | |
| | | | | ٠ | | |
| <400> 5698 | | | | | | |
| aaaaaaagat | atatggcatt | actttggtct | ccaaaacagt | tgccagtttg | aactttattc | 60 |
| tgccagcaag | tatttggttt | ggctcagcag | ggctcaagtt | gaaaaaatat | ttgcccattc | 120 |
| caaaaagatt | taacgagctt | tgctgcaaat | gctggtgcca | tttggcacat | cacagggact | 180 |
| gtggcacagc | aaagagaact | ctctcaacca | cagattttat | ttgcccaagg | tagccagcac | 240 |
| tgggagctca | gttgattcct | cgggtcaaga | agctgcaagt | caaatgcgtg | aagtttccaa | 300 |
| gagaaagtga | ccaaagcagg | catgagaaaa | ctcttgctga | cattgaaaag | gaagtcactg | 360 |
| ggtctgactc | caccctgcac | aggaatttga | tggctaactt | tcagaactgn | caacaacatn | 420 |
| cttacaccaa | ccnttagatc | caggctctaa | aggtgcaggc | agcagaccng | attnatctcc | 480 |
| acntntagca | cagctattc | | | | | 499 |
| | | | | | | |
| <210> 5699 | | | | | | |
| <211> 601 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | 1 | |
| <400> 5699 | | | | | | |
| ggataaggct | gtgctttatt | acatgcataa | ttacaaatct | gatttctcta | atttattctc | 60 |
| tgaagtagca | ccttaacact | ggctcatctg | tctaaaatca | agaacaaagc | ctagaagaaa | 120 |
| cacaaaagca | aacttgagac | accctcctta | tcgctactgc | actatgaaat | atgaccaaac | 180 |
| ctttcattgn | cattaaatac | cagaaatagt | aacattttct | gttttgcaaa | ctttagtggg | 240 |

gaaggacaac taataagaca ggtattggac cagaaatgta cagataagaa ctttgatttc 300 tacacaatat acagggtagt caagccaaat agtctcatat gaaggaatca gtgacatgga 360 aaggacaaaa tatgtggtta ctgagccatt actatgatnc acatacccca gaaaggattt 420 tttcttttc attaaaatgc tanaggngga ctattcccan ggggaaactn ttgcgctggc 480 ttgattantt taaaggataa aataaaataa ncccttgggt anccaagttt gggccaaaaa 540 aagaagttca gantttggaa ggaccagact ntgggtaaaa ccgtctaaaa tcagggtccc 600 c

<210> 5700

⟨211⟩ 602

<212> DNA

<213> Homo sapiens

<400> 5700

gagatggacc cttgctctct agcccaggct ggagtgcagt ggcgcattct cggctcacca 60 caacctctgc cttgtgggtt caagcaattc tcctgcctca gcctcacgag tagctgggat 120 tacaggcacc cgccgccatg cccggctaat ttttgcattt ttagtagaga tgggattttg ccatgttggc caggctggtc tcaaactcct aacctcaggt gatccacccg cctcggcctc 240 ccaaagtcct gggattagag gcgtgagcca ctgtgcccag ccatgaatgg attttgatat 300 ggacagatgt gtgtcctgga agatgtgctc taatgagggg agtgagccaa gcatgaggag 360 420 gacacgaaag ccagaaaaca gagattcaac cggaaaggaa tggggaattc caaagatgac 480 cccaaangga agnccnaggc attagctncc aangggccta agaaagcaac taggcccaaa 540 tggaaagaag gttggatacc taaaaaatgg gactggaaca tcttttacct ggtgggactg gecengnngg aaagcaatac tganggettt tgggaaaggg ggnaaggeee nececaaana 600 602

⟨210⟩ 5701

<211> 600

<212> DNA

<213> Homo sapiens

<400> 5701

agagatggtg gtctcaccat gttgcccagg ctggtctcaa actcctggga tcaagcaatc 60 ctcccacctc agcttcccaa attgctggga ttataggcat aagccaccaa ggctggctgt 120 gaacaatatt aaacaaaaat tattteetgt ggtaacagag attacateet atgggacagg 180 240 gagacaggca gcagactgat aaattaatac aagatctgtc tgatggtgat aaatattgtg 300 caggaaaaaa aacgaaggaa gaggataaga aacattgaag gactaaagga acggtcacaa agaagaaaac atttcagaaa agaactgagt aaggaatgaa gaagctgagt tctgaaagtg 360 420 tctgcagaaa ggcttttcag tagaagtttc agaaagtgta aaggccctaa gataggaaag ggtctaattg atgagcactg gcctacgaag gatgtgtggc catcagcatt agcccntccc 480 aaaatcaaat ttaaggagaa ttagacttta ntttaaattt tgcaaccaca ccacaagcat 540 cacaaggttt tggaaatggg taagctgata ccaattagta ttgnaactat naatctgctt 600

<210> 5702

<211> 474

<212> DNA

<213> Homo sapiens

<400> 5702

| gaactgtnca | agagttattt | atttttcctt | aatctcaaag | ctatttttag | taatacaaaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| aagccatatt | aacattttt | tccgttagaa | aacatgatgt | acaaaacttt | ggatgaaaag | 120 |
| atacgtcaaa | tttcatttaa | tcacttggag | gaaaatccac | caactccatc | aataccaccc | 180 |
| aaagngtttt | aggcagngaa | taaaatcaaa | ataatgcatc | ttaataaatt | ccagctgtta | 240 |
| aaagaacaaa | cttagcaata | tataacagtt | tgctaacagg | atttttgact | attcactttg | 300 |
| ggagttattt | ttaaaaatcc | actttttac | tgagtcttac | tacataccag | gcactgtact | 360 |
| tgggccatct | anggtaacta | agaaaaccgt | tggttaagat | nggaangacc | cttaaatcag | 420 |
| cccttnggtt | nccaaattca | attttnacct | ttnaacatcc | tccaggatca | gnaa | 474 |

| <210> | 5703 | |
|-------|------|---------|
| <211> | 576 | |
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 5703

gagatggagt ttcgttcttg tcacccaggc tggagtgcag tggtgtgatc tcggctcact 60 acaacctcca cctcctgggt tcaagcgatt ttcctgcctc agcctcccca gtagctggga 120 taacaggctc ttgccacagg gcccagctaa tttctgtatt tttagtagag acggggtttc 180 accatgttgg ccaggctggt cttgaactcc tgacctcagg tgatccaccc accttcacct 240 cccaaagtgc tgggattaca ggcatgagcc actgggccca gcctaaatag tatatatttt 300 taaatatcct ttcagaaaag gccgcttatc cagaactatt ctgaagacag taaagaactg 360 ctgaagagga agaaaaaact ggctgtgcaa tagcagaacc tcctccgaac caaagcctct 420 480 ggagaagaac cagntgcagt ggaggcntta ctcacccatg ttaaaagcac cggaaccgat 540 taanaatccc aagcttggcn aggantggaa cttggaaaag ggnccttagg ngccnttgga 576 actaccccn ttaatttacc ggtggaatgg aacccg

<210> 5704

<211> 584

<212> DNA

<213> Homo sapiens

<400> 5704

ggtaaagaaa agtgctgttt tttatttgtt cttgaatgta taggttcttt taaaatcagc 60 tatacttccc tttaaaatat cctccctcat gccccaaccg cttagaatcc aatagccact 120 cctaacaagg gcctaggagg aactcatcct acatagccaa gaaaggggta cagcttgagg 180 aatgggcata tggctcagga agcagcacca gctgataaga actttcccca aagcagctct 240 gtttggcttg tgagtctcct ttccctgccc tggtctggac tcccccagct gtgtcccacc 300 cctggaattc ccctgttcct tatgtggcct gatcttgaga gttaaaatca taattaacat 360

ctttacagct ggagagctga gagatcactg gtctcaagcc attctcccac cacaacttta 420 tagatgagga actgnatccc aaggttcccc agctcatatn ggaaagagcc aaaaatttng 480 gggtcaaact cttcaaatca ganatctttc taagganaan cctccttaac ctccagnaag 540 ccacccatac tggcttcaac tccnnaacaa ctggggccag cngg 584

<210> 5705

⟨211⟩ 598

<212> DNA

<213> Homo sapiens

<400> 5705

atacacaaaa agatttgtga acttgaacaa ggcaagagat acaatctaaa ctacaaagag 60 aacaaaagct aacccctacc ttggcccccg gagtaagaga tatcattctg aggaacacca 120 agtggaagcc tctaaaactg ccccctccc cagccaaact ctatgatcaa gatagtaaat 180 gaaaaacaat attgtgggag gggtagtgag gtttataaga tataaaaaag taaaatatat 240 ttcatatctt gtaaacccta ctatacatat tagtgcaggg agccaaaggc ccatgggaca 300 tgacaaactc agcattccgc tggaggctat atgatcaaac agcaaactgt ttatcatgaa 360 tgcaggatgt gggcaaactc acactggcct gccaccattg ccacagttnc catnttacca 420 gggnttttcc ctggacaagg tccttnggac ttaactggga ctgcntggga aggatttccc 480 cttcttgatc cccggttttc cctggnggga tcccntaagg ttaccaggna ggcctttttn 540 aangaacctt tttacctttt tcaggcctaa gggntttntt ccgggggggt ctgggaag 598

<210> 5706

<211> 462

<212> DNA

<213> Homo sapiens

<400> 5706

gttgttgttt atttgttttg agacagagtc tcactctatt gcccaggctg gagtgcaatg 60

gcacgatctt ggcccactgt aacctccacc tgccaggttc aagtgattct cctgcctcag 120 cctcctgagt agctaaggga ttacaggcgt gagccaccat gtcaagctaa ttttttgta 180 tttttagtag agacggggtt tcaccatgtt ggccaggctg gtctcgaatt cctggcctca 240 agcgatccac ctgccttggc ctcctaaagt gctggaatta caggcatgag ccaccccgcc 300 tggctgagcc agctgcttct gactcaaaga aaggagccna cagtaggcca aggaaagaac 360 acaagcccgt gaatggggcc cttccacaag aatactgnca gaacccttcn ggctttccac 420 tacattatgc tnaaantngg atgggantgg tangaaccaa aa 462

<210> 5707

<211> 566

<212> DNA

<213> Homo sapiens

<400> 5707

aagacgagtc tcgctcttgt taacagccca ggctgaagtc tggagtgcag tgatgtgatc 60 teggeteact geaaceteeg ceteetgggt teeagegatt eteetgegte ageeteecga 120 gtagcaggga ttagaggctt ccaccaccac acccagctaa'tttttgtatt tttagtagag 180 atagtgtttc tccatgttgg ccaggctggt ctcccactcc tgacctcagg tgatccgccc 240 300 gcctcagcct tccaaagtgc tgggattaca ggcacgaacc accgcgaccg cacccagcca ggatttcttg atacactaca aaaaggggat gtcaacttat gaataaaagg gaatggggct 360 tttggtttca gattaggcca gacaggttga tgatgtcagg aggtgtccat gaagagttaa 420 atggaatttt acatatetta ttgnatttaa tatgeteaca tattetattg natttaattt 480 tcacgacaat caggtaagaa ttaggataag tantggatct tcattcacaa atgatacccg 540 aanttcagag angngaaatt ccttgc 566

<210> 5708

<211> 565

<212> DNA

<213> Homo sapiens

<400> 5708

canggaaagc catgtagttt tttaagtaac atattgctgg tagtaaaaat gctatgacag 60 acacgactic aaattitaag aaacaaaatg gactgticat acticggcti cagciactgc 120 ccaaagcagc tgtgatatat cttgcaaaga aaagagctaa aatttctgtt gataataaag 180 ttgtttgtaa actgatgcta aaatatattc caattgtctt atttttagtg ctggtatgat 240 ttactaactt ctgatagttt tatatgcatt gaataatgtg atattcttaa aatancagat 300 ttattcaaga atatttaaca tcaaagttgg gctttcaaat aaatatttta cctcggttag 360 tttttgaaca aatgttgcag gcagaagagt ggacttgatt cctttagata aataaacagc 420 ctacttaatt tccatgcaaa taacaactta aacattattc catgctcaac agtaatgtgg 480 gggaaaggtt aaaaaggcag gtnctcatga tggggaactt ccttacatat atccttaggc 540 agattettte tttacegnaa ggtet 565

<210> 5709

⟨211⟩ 558

<212> DNA

<213> Homo sapiens

<400> 5709

aaaggetagt caagtgattg acattteeta aaaacattte agteataeet tagaaaacae 60 acataacatt caactggctt ttttctacca gaatgtctga tgctaatttg gaagaatttc 120 acgtatatte tatttgeega atgtacagea cattetttte aetteageae tgacaateea 180 aagtgtttca ttaaagaaac aggactttta cctttgttca agttgtttaa tggtagcagc 240 300 catctgatta gtcttctctt ccaagcgact gtttagttca cttttctgtt ttactcctaa gtctgaactc tgcagcttaa aggcaagttc atgcttgaga gctctgaggt catccaactg 360 ctgccgaaga gataccaggg catcctgctt ctcacagaca tccttctcca gcatcttcat 420 480 agccaattcc atctcctgcc ttatgctgat ctgcatctcc agttctttct caacatccaa 540 tcggaattgg ggctcttctt ttaaagcttc ttggtttact taangctggc cttttgnagt 558 ctatcttgct tgggancc

| <210> 5710 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <211> 559 | | | | • | | |
| <212> DNA | | | | • | | |
| <213> Homo | sapiens | | | | | |
| (210) | | | | · . | | |
| <400> 5710 | | · | | | | |
| acttattagt | gctttatgtt | acatgaaatt | aagtgcaaaa | atacttaaat | aatgctgtgt | 60 |
| gccaggcacc | actctcaatg | gtttgactca | ctgtactctg | cacaatcacc | cattttccag | 120 |
| tgaaggaaat | ggaggcacca | agggtaaagt | agccagcaca | agtcagacct | catggcgggg | 180 |
| ccaaggcatt | ctggctccaa | aatcccgaat | caaaaagcag | aaggtcaaaa | aattaaaaac | 240 |
| aaagaaacat | cacacacgga | aggaggagag | gccaaagatt | actccgaggg | attaaaatct | 300 |
| gagttttcct | ccggtttacc | ttctacaact | ccttttactg | accacgcctg | acacactgac | 360 |
| acatgcattc | cctgncacag | tggcttctgn | ggcccgcctg | gctgtactgn | acagtgcaac | 420 |
| ttctnaaggc | ggagctgcgt | ggacccctgg | nccttnttgg | gccatggctc | taantacccc | 480 |
| atggttcctt | ccaaaggcaa | tgggcantgg | cataggtanc | cacacgtccc | atttttaaa | 540 |
| aaacctgnnc | cntggatgc | | | | | 559 |
| | | | | | | |
| <210> 5711 | | ٠ | | | | |
| <211> 555 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | • | <i>:</i> | | | |
| <400> 5711 | | | | | | |
| attttttga | aacagagtct | cactctgttg | cccaggctgg | agtgcagtgt | cgtgatctca | 60 |
| gctcactgca | gcccctacct | cctgggttca | agcaagtctc | ctgcctcagt | ttcccgagta | 120 |
| gttgggacta | caggcctatg | gccacctcac | ctggctaatt | tttgtatttt | tagtagagac | 180 |
| gtgggttcac | catgttggcc | aggatggtct | cgaactcctg | acctcatgat | ccacccgcct | 240 |

ctgcctcccc aaagtgctag gattacaggc acgagccacc atgtccagcc aattagttgg 300

| ttttaaatat | atttaagtta | atggacaaaa | tattctaaaa | gggcacagtt | aatgacgcct | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| cttcctagtg | aatccgtgtt | ctttatgagg | tatcttttat | agttgtatct | tttttttt | 420 |
| ctgagatgga | gtctcgctct | actgtagccc | aggatggaat | gcaataagtg | ngatcttggc | 480 |
| tcactggaac | ccctggcttc | cgggttcaag | gaattttctg | gcntaaaccn | ccggggaact | 540 |
| gagaattcag | gcncc | | • | | | 555 |

<210> 5712

⟨211⟩ 338

<212> DNA

<213> Homo sapiens

<400> 5712

| cttacttttt | tttttttta | atccaggtac | ccaattttat | cagccaagtt | tggagtaang | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ggttgatgaa | tgttgataca | gtcatggggt | ttcatttatt | cattatgtct | tccttcttct | 120 |
| gtgggaggca | gcgctgagat | gataaatgct | gggctcanat | ccagcttggg | ccactcactc | 180 |
| ccaagattca | tacacaaaca | gaccagcttg | atcagggccc | agcagggagg | tgaggcttaa | 240 |
| gcctcctcgc | tggaggagga | gccaataaga | agactggcag | cttggatagt | gagtgtgtgt | 300 |
| gtgtgtgtgt | gtgtgtgtgt | gtgtgtgngt | gnnngnnn | | | 338 |

⟨210⟩ 5713

⟨211⟩ 555

<212> DNA

<213> Homo sapiens

<400> 5713

aagaaggtac tactgctgta agaagttaac aagtaataat ttcctattta acatctgntc 60 ataatgacat ttccgctgca tttttttcca tcaagaatac caaaacagtt tcctaatata 120 cagtatttga aagtgtttgc catattggct cttaaaatga tagactaatt tttctcattc 180 aataaaagaa aatttctaat aacaaaatac atgtaaagtt agaattttat aatttccaca 240

| aaggaagcag | catttattaa | ccagagtact | tgtttgcaat | tttttatctg | tgaaaatatt | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| ttaaagctct | tacaaaactt | aaattttaa | aaaatcagct | caaaaatttt | ttccatgttg | 360 |
| ttgggcatac | cactgctgtc | tctgctttcg | gttttccaac | tctgtaagaa | gggcttgnct | 420 |
| gtatgcttca | tacattttaa | caatctgctc | caattctttc | atgaagagca | ctttagcatt | 480 |
| ccctggnatg | natccaggca | gncagctggn | aagagttcca | cttcaaaatg | gggcatantt | 540 |
| ccangggctc | ggcgn | | | | | 555 |

<210> 5714

<211> 553

<212> DNA

<213> Homo sapiens

<400> 5714

| ctggatgcaa | ccaatcactc | tgtttcacgt | gacttttatc | accatacaat | ttgnggcatt | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tcctcatttt | ctacattgta | gaatcaagag | tgtaaataaa | tgtatatcga | tgtcttcaag | 120 |
| aatatatcat | tcctttttca | ctagaaccca | ttcaaaatat | aagtcaagaa | tcttaatatc | 180 |
| aacaaatata | tcaagcaaac | tggaaggcag | aataactacc | ataatttagt | ataagtaccc | 240 |
| aaagttttat | aaatcaaaag | ccctaatgat | aaccattttt | agaattcaat | catcactgta | 300 |
| gaatcagagt | ctgtaattct | tttcttgatt | agagtggtag | gacactgtaa | tactgttcct | 360 |
| ccatgtttcc | atgcatacaa | tgttatgtgt | tactctacac | tgtaaatgca | gtattcaaat | 420 |
| tcacttgagc | cgtgggcctg | gaagttagag | actagctttt | accttattac | tttcaatgat | 480 |
| tttatctggg | gttagctgac | aaatctnttc | gnggntgaat | ccaaattctt | nagggtctcc | 540 |
| tcaggggggg | cnc | | - | | | 553 |

<210> 5715

⟨211⟩, 564

<212> DNA

<213> Homo sapiens

<400> 5715

ggtagagatg gggtttcacc atgttggcca ggctggtctt ggactcctga cctcaagtga 60 tecgeetgee geageeteee aaagtgeeag gattacagge atgageeace aggeeeagee 120 tacttcttga attaaaaaac aaaaaacaaa caaaaaaaccc aggcagataa tgaaatcctg 180 catacactca agtctgcatg aagcataagg ccaaactgga aagtgggcat ttgaacaacc 240 ctcttcctgc tcccttcccc taactaagat gggcttctgg gcctatcaac cattctttgg 300 taaagagcag caattcccca taggctcttt aacaacagca ttggtgtttg aggttgcatc 360 tttaaaacat ctatttcagg atttggaagc ttctggaacc ataactttaa cccagccttc 420 480 cataacagte tttttacttt etattacaga acatgacaet geaataatag caatgaacee gcttcaagct ttttcacttt ctggcagaaa gcttaaaaca cttctncaaa tatataaagg 540 gggctggaaa gcttaatttc ctgg 564

<210> 5716

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5716

gaatagaggt aacagtctga acttctttta atgtttgctt tgttttcttt tctgctgact 60 tgaatgcctt ctcagcagct tcaacagtct tttgngtttt cttagcagca tatctcttgn 120 gatcataata ctttttggca ttggcatatg ctgacaagct gagatcaaca tctacaagta 180 240 agggettatt tttetgagge ttetgeaget gtttattett ttgtttttte tttttteett 300 ttggtggttc agtttcattt ttctcaacat tgacgtcacc atcaacatca tcatcttcct 360 cctctgataa caagtatgga tttcttagca gcattgtaac atggnttgtt tgnagtttaa 420 ttctttgatt gcacttgcaa caggggtctc cttgaccctg ggcttctttc acaantaacc ccaatttctg gccaatctat ctgggtagct taagccnttt ngaactaccc ggaatgggtc 480 540 tggcaactat tggnaggtca attctaatga gctctccttt cagttggcca atttccggnc 564 cctgctgaaa agcttncaaa cnng

<210> 5717 <211> 525 <212> DNA <213> Homo sapiens

<400> 5717

cactttggga aattttttaa tcaatcagtt tcttaggaac aacacccagt gggcatgatg 60 agacceteaa agtaggaatg caggaatgat aggcaggtga ggtggntgag ctatetggge 120 tgggaggcca gcctcctgga atcttaggac aaataaaagg gggaaaaatc caacctcaca 180 cttnttttga aggtcggata tgtttacaga aacaatttct gttttggaaa ataaatgnat 240 ggtncaattt ggggctgggg gaacaatgac aattgtcanc tagagagagg ctcatgattc 300 360 tgagataaat gttaagtgga gctttttaaa atgctgaaac aaaacattac cttggtactg tctccatcat gagatgtatt tgacacattt gaccatgtgt aaaaccccca gatttaccca 420 atgccatgga tccatgtgcc cacnccatga atncaaacct ggnggatatg ttccaggaag 480 gaccggcnna gagttcatgn gctttacttt tnggaaagaa aattt 525

⟨210⟩ 5718

<211> 540

<212> DNA

<213> Homo sapiens

<400> 5718

aataaagcag aaatgtattt attaggcacc cttgttcctc acagaggagc aagatccagg 60 cctgagcgcc tgggaagtct cttgaggttg caggaatctc cagagaaaca tgctctgacc 120 cttctgctct ttcaggatgg tctcatagcc cacgccccgg gtggggtaca tgtcccctg 180 gtagctttgc tctgggctgg acttggtcac ctgggagacc tcggggatga cgtagaagag 240 gacgaaggcc caggcattgg cggcgagggc gatggccagc gtggggtcat cccaggtggg 300 actgttgtgc tgcttgttgc ccgtaagtat acatgacgat ccacaccacc catatggcaa 360 cggaggtggc tgggcctgcc agggngaaga ggagcctgga aaagtcccct tgtcccggg 420

ccaggtcctt angggccttc ccaaatccga acggctttnc ttgncaccgg ttgctnaanc 480 ccaacacgta aggggttttt aaaggacctg anagttcttt gccggctttt cgcggngtng 540

<210> 5719

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5719

aacagaaatt actgtaactg ttgaattatc tgggagatag acacagccct gtccttgngg 60 120 tctacgaaca ttgggaaaca caagtaacaa tttcaagcat aacctctggt ataaacaagg gaaacaacaa aagttcatgg gcactcatca caaaaagact aataaaatct aagacctagt 180 aatteettat ggagtaagaa geeagaaata ataaaagaae tgttttaatg gaaagataaa 240 ttcacgtgtc agaacctaga gaagcaacag acaagtctga acaggaaggc agtaagggta 300 tgaatcattt taatgcgttc taaactgaac ttatgggcat taaaaagcta ttgaagggtt 360 ttagaagagt tcctggttaa gaaagaactc ttatgagagt aatggggaag aangcttgag 420 agcaaaaaac ttttaaggaa ggcttttgag gttgagaaga caatagnggt ctgggttgga 480 cccggngaaa ctggttagga tcccgacttt anggangtag aaccnttaag gngngggagg 540 561 atgaatgacg agttaagcct g

<210> 5720

<211> 406

<212> DNA

<213> Homo sapiens

<400> 5720

ctgntaataa gaagacagct ttattttctc aattagttca cgtatataca tggctgaaat 60 ttacttattg ctacaattct attcttcttc cttttttttt gagatggagt cttgctctgt 120 tgcccaggct ggggtgcagt ggcacgatct cggctcactg caacctccgc cacctggatt 180

| caagcaattc | tcctgcctga | nactcccgag | tagccgggac | cacaggcgca | tgccaccatg | 240 |
|--|--|--------------------------|--------------------------|--------------------------|--------------------------|-----------|
| cccggccaat | ctttgnattt | tcagtagaga | cagggnttca | ccatgttggc | caggctggtc | 300 |
| tcgaacttct | gacctcaagt | gatcccgccc | cgntggcctc | ccaaagngct | ggnattacng | 360 |
| gcgtgagcca | ctgggcccag | ccctattctt | nattttngac | atgnaa | | 406 |
| | | | | | | |
| <210> 5721 | • | | | , | | |
| <211> 248 | | | -f | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5721 | | | | | | |
| gaccaaaaaa | ggcaactata | tttaaagtaa | atgtatgtga | ttcttgtcac | aacaaatatt | 60 |
| tgcattttct | cagcggcagc | tgcggcacct | gggtggaagc | cgngattgag | gtgcccgtcc | 120 |
| atctccagct | tcaccccgtt | caggtggtct | gggggcagga | tctcattctc | ctccctgttg | 180 |
| gctactcatt | tccagcgaag | tttaatctat | ttttaatant | cgttcanntt | tcanggaaat | 240 |
| ggnngngc | | | | | | 248 |
| | , · | | | | | |
| <210> 5722 | | ÷ | | | | |
| <211> 523 | | | | | | |
| <212> DNA | • | | | | • | |
| <213> Homo | | | | | | |
| | sapiens | | | | | |
| | sapiens | | | | | |
| <400> 5722 | sapiens | | | | | |
| | | attaaagttt | atcgcttcca | aaaaacagca | ctttaattac | 60 |
| aatagaattt | cattttaata | attaaagttt aaataccaac | | | | 60 120 |
| aatagaattt | cattttaata tattcatttt | • | aaacccatca | tttacatata | gagctagata | |
| aatagaattt attcaagttg ttacaaaaca | cattttaata tattcatttt gatggaaatt | aaataccaac | aaacccatca ttttttttaa | tttacatata gtccttccaa | gagctagata atttagaaca | 120 |

tacaggtatg tettaaagte aagaaaacee caaagetaat aactagaact atagggcaaa 360

| atcatagctg | actttctaaa | ctaatgcacc | actatataat | gcttttcccc | agagaaaggt | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| agaanggtct | caagatttat | ggtggcccca | tggatttttc | acggggtctc | aaatntaaaa | 480 |
| nccagagttt | tctttttggc | nttaaattac | nctcanngtt | tgc | | 523 |
| | | | | | | |
| <210> 5723 | | | | | | |
| <211> 484 | | | • | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5723 | | | | | | |
| ccaccatttg | ggacgtcttt | attatggatc | cgtccactct | tccaggagca | gtagcccttc | 60 |
| taggaaaggg | gtgggaagaa | aaccagccta | cccttcaagc | tgacttagga | tgcaanggta | 120 |
| cagacaccag | ccttggggga | gggttctcca | tccacactcc | taccccaaac | gggctttgtg | 180 |
| ctgctcaatg | gggattcggg | gccatcagaa | gcgatgccgc | ggntgggggc | caaagtgcat | 240 |
| ggncaggttg | tgctccaggg | gcatgtggat | gggaccgaag | tcatagttga | cccgnacgtt | 300 |
| gggcagaggg | ggcacgtacg | gggctgggat | aggccccatg | ttgagnggga | agttgntgaa | 360 |
| cacagggccg | cacgggaagg | cagcggaagg | gtgggtgccc | caaagcatng | ggngggatct | 420 |
| gtgcttgtng | caggttntgg | gaacgggcct | ngganggcct | tcacctttgg | aacttttcn | 48 |
| caag | | | | | | 48 |
| | | | | | | |
| <210> 5724 | | | | | | |
| <211> 566 | | | ٠. | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5724 | | | | | | |
| aacttctaaa | actcagtcat | tagtgatcct | accaaaaaag | ttttaaaata | aatgtgtata | 6 |
| ctttttggac | aaatgtgtaa | attaggtata | aagatgaatg | agaatttaca | gaattgaaaa | 12 |

taaataataa cagagagaaa tgaagaatta ttctgccaat actatgattt gaattattag 180

| caaggcaaaa | aacatactat | tcagatccct | aaaaaccata | tgaagcttct | ttttaaagtg | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| ctcaaacgtc | ttaatggatt | tgagttttaa | aaccagatct | taatttttt | tggtttatta | 300 |
| caaaaattat | acacataaat | tataaaatga | tcaaatacaa | gacagttttt | caatcccacg | 360 |
| ccactgaagc | aagaaccatt | aacaatttga | tggttctttc | taggcatttt | tgnggaatat | 420 |
| aaaatgnata | atgnattatt | tttaagacat | ggcttttgga | aaaatgcttt | aatantatat | 480 |
| catgggaaat | ctttcacctc | ttngggactg | ggcagacctt | tnaagctgga | gaaaaatttt | 540 |
| cngngaccaa | aaaaaaanng | ctttat | | | | 566 |

<210> 5725

<211> 573

<212> DNA

<213> Homo sapiens

<400> 5725

cataaaatga ttttaataga aaagtacaag acatgancaa aaataaataa tctttatctc 60 attictagee cageaaattg theactgeat ataaaaatgg tetaagatge aattiteete 120 catteetttt ttgettttaa aataetgaga cagcatttta gtteaatatt etaggtteaa 180 actgatacat taaaaaaaaa tcataccaac ctttaatcat tctacatcca ttttttaaag 240 ttagctaaca agatgatgtt tcactaaaat aaaatatcca atcatcagat taaagtgtaa 300 agtttgtgtg aacagggaaa ttagatcatt tctctaagtt ttaattccta tgttctgaat 360 gtttcttgaa ttaaaaattc attcatcatc ttactttcaa accacggcat ctctctttta 420 ccattccaca gaggaggga aaaggactag aaaatacctt taaaaaaaatt aaatatttta 480 aaaggatagc ttacaggggc catggaggaa tttanaacct ggggccttng ggcctatttg 540 cattaaancc aggettnagg ttttacctcc ctt 573

<210> 5726

<211> 530

<212> DNA

<213> Homo sapiens

<400> 5726

gcattgccat gattttatta ttagtgtcca aaatgggact cccaagtaat aaatgattta 60 ttccagccac agccaaaaaa gactttgcct ggctaaaaga gtctctctct aagtatgtaa 120 tatacaagaa atacaattca aagagatgtt cctataagta cattttttac acggcatata 180 tttaaaaagg aggccccttt taatataaaa ttccggttat ataccaatat ggttaattag 240 300 catttacact atagtttgaa cgtattttaa atagcatgat gtgtatacaa tgtctcccgc 360 gcccattggc aaccagggtc gtgggaagct tggtgaggag ttaaccaggt cctgtggttt aagcagngga gcacccggga attcctgccc conttttggt tncacaattg cctccattct 420 480 ttccgccttt cntggttttc tccaaaacca cctggatang gggggaaggc cctggatttc 530 tggaggggg cntntcaatc aaggactggg tttngttttg nccttttnga

<210> 5727

<211> 545

<212> DNA

<213> Homo sapiens

<400> 5727

gatttagtta catcattett ttetteteta etttetette etgaaaaact etteettaca 60 taaacaaatt catactggag atatatgtca gaaaacattc agcctgagta aactgaacgc 120 tctgtacaga aaacaacgaa caaaacagaa cttcaacagt aacactggcg tggcataata 180 taagccacgc aaaatgcttc caaatccatt atctcttctg agtttcatct tgtgaggttt 240 gaagggtaca ctgattgtac ttaaaaaacct aaggcacaga gaaggttaaa taacatgcct 300 gagttactaa aaagagaatc cagatctagt tcaaaatctg gncttctttt cactatacca 360 ataacatctg actgggaggc agnatgagaa gagcaatgga gtaagcacta anggtaattt 420 caggggcctt aaacccccta atatattatg gaccactctt canttgaaaa aaggttggca 480 540 tttcttnaag cnttaaatcn ccattatata tttttnaagg gtttcccagg tcntttctac 545 ttntt

| <210> 5728 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <211> 513 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | · | |
| <400> 5728 | | | | | | |
| agtagagacg | gagttttacc | atgttgtcca | ggctggtctc | aaactcctga | cctcaggtga | 60 |
| tccgcccacc | tcagcatccc | aaagtgtggg | attacaggca | cgaggcactg | tgctggccaa | 120 |
| ctctctttct | ctctcttt | taatctcttt | attatggaaa | ttcagaaact | atacacaacc | 180 |
| cagaatagtc | tatgaactcc | ctaaagactc | atcaaccagc | ttcaacaatg | atcatctttc | 240 |
| tgcccatctc | attcctctcc | ttttttttt | ttttttttt | tgagatggag | tctcgctttg | 300 |
| tcacccaggc | tggagtgcaa | tggcacaatc | tcaagctcac | tgcaacctct | gcctcctggg | 360 |
| tacaagcgat | tctcctgcct | tagcctnccg | agtaagctgg | gattacaggc | gcatgccccc | 420 |
| gtgcccagct | aatttttnga | tttttttta | gtananacng | ggnttcacca | tgcgggcaag | 480 |
| gctggcntgg | aactccnggc | ctttgaactg | gca | | | 513 |
| | | | | | | |
| <210> 5729 | | | | | | |
| <211> 250 | | | | | | |
| <212> DNA | | ٠ | | | | |
| <213> Homo | sapiens | | | , | | |
| | | | | | | - |
| <400> 5729 | | • | | | , | |
| cgagcaanaa | tctgttaaca | gttttatttt | ttttatgtta | aataccangg | gacaggattg | 60 |
| taaggatgaa | aaactcagtc | aacaactgcc | tcacanggga | taanaaaaat | tctgccatga | 120 |
| tattagcaaa | ggtaaaggag | gaaaaattta | cnctgtaana | ggcnccattt | ccccaaggaa | 180 |
| tacctntngg | catttcctga | atgagnggga | ttagcaatct | aaataaatca | tatttcaaga | 240 |
| ggtancagca | | | | | | 250 |

<210> 5730

<211> 569 <212> DNA <213> Homo sapiens

<400> 5730

60 gccagataat ctttatttta cacatttgca acacggcaag agaattcacc ccgtacatca 120 ccatgatcgg atcccccacc cattatacgt tgtatgttta cataaatact cttcaatgat cattagtgtt ttaaaaaaaa atactgaaaa ctccttctgc atcccaatct ctaaccagga 180 aagcaaatgc tatttacaga cctgcaagcc ctccctcaaa cgaaactatt tctggattaa 240 atatgtctga cttcttttga ggtcacacga ctaggcaaat gcaatttacg atctgcaaaa 300 gctgtttgaa gagtcaaagc ccccatgtga acacgatttc tggaccctgt aacagtatct 360 tacgtgctcc aaaggctgac cttctggagg ctcaccgcct catctggctg cttcctccaa 420 aatccaaaac cttgcctcaa aataaagctg tcctgtgggt gaagttggct ggtctggttc 480 attetgacca ttetgacttt tgnccaaaaa geegteeaac tgnagacace etgntggeag 540 569 aactccaaca ggtccccnag gtacgaggc

<210> 5731

⟨211⟩ 583

<212> DNA

<213> Homo sapiens

<400> 5731

cctggacagc atttcatttt attatgtaac tgtagaaagc cttgatcaag ataaaaatag 60 ggatgactta tcagaaactg aagaattttc ttaggaaagc aaagtttact gaaggatacc 120 ttcattccag ccatgatgag catctgtctt ctcaggcaat catgatgaag ctccagggac 180 agtataaccc atctctcca ctcatccctg agccttggtc ctggactgaa tgtggttaga 240 ggttgtggaa ataaaaaaaa gaaccaaaat aagaacactc tccataaaag ccaagctcag 300 agactggtcc tcttttgctt aggtacaaca ggagcaggaa ggatcaacat tcttgaaagc 360 ataccttcta ttcatttggc ttttttgact tggggccgcc agtgtanagc tgagcactcc 420

actgeeettt eteeaeteae aaatgtetge ataggtacae gtteeggeae ttteaageet 480 tetteeaegt naactteeet ggggetttte ggtggneeat neetgnteet tgaaaggtaa 540 aagggteaaa eettaneeaa gateeeaang gaeteegaga tna 583

<210> 5732

<211> 460

<212> DNA

<213> Homo sapiens

<400> 5732

aatgttcaag gagcacttta atagtcaaca aattgatgca gttttgtcac aatactttgc 60 ataattttat agtaacagta aaattctgaa tcactttata gtaaaagaaa agacacagag 120 gaaaataatt tccctgtaca atgaaatttt catacactat atgaagattt cccacatctg 180 tcaagttttg gctcagaata aaagatagct aatatatttc actctttttt ctggtacttt 240 ttttttttt tttgagacag tggttcgctc tgttgcccag gtcggagtgc aatggcacca 300. tctcggntca ctgcaacctc tgcctcccag gttcaagcga ttctcctgcc tcaacctctc 360 aggtagctgg gattacaggc gtgcgccacc aaacccagnt aattttggat ttttagcnaa 420 accgngnttc accatgtggg nanggctggg ctntaactcc 460

<210> 5733

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5733

aattttttt tttttttt tggcagagtt tctgcattca aattaagtcc ctcaagggaa 60 ggaacgaaaa agagcccagc atttcctaag cttcatctac gtgacagggc atttatttag 120 nggaattaca tacaggaggg tcttggagat tgcctttgcc tttcacttgg gatgaaaatt 180 tcctctgcag catgcaaaac aggtgagagt gttcctgctg ctacagagtt cttttgcact 240

| aaaagaaaaa | tcttcctcct | ctcaaatttt | gcctaccaac | tctagcacag | tcatctgagg | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| cagcatgaat | caagcccagt | tttcttctta | cagtcacttc | cttaacagtt | aaaagaagca | 360 |
| tctgtcttct | tggacttctc | tggacctaat | accccttata | ggtcagctat | ccccagcaca | 420 |
| aagagatttt | caggaatacc | tcaacttgnt | cactcactac | atgcctctta | cagtctacca | 480 |
| accatggtac | ccanaaatgg | actcagattg | cnctaaacat | actgcttcnc | atacctggcn | 540 |
| ggtaggaata | gcctaaaggg | gtan | | | | 564 |

⟨210⟩ 5734

<211> 558 ⁻

<212> DNA

<213≯ Homo sapiens

<400> 5734

| gttctagatt | gttttattca | gtaattagct | cttaagaccc | ctggaagcct | gtgctctacc | 60 |
|------------|------------|------------|------------|------------|-------------|------|
| cagacgctaa | caacagtctc | tatccagttg | ctggttctgg | gtgacgtgat | ctccccatca | .120 |
| tgatcaactt | acttcctgtg | gcccattagg | gaagtggtga | cctcgggagc | tatttgcctg_ | 180 |
| ttgagtgcac | acacctggaa | acatactgct | ctcatttttt | catccacatc | agtgagaaat | 240 |
| gagtggcccg | ttagcaagat | ataactatgc | aatcatgcaa | caaagctgcc | taataacatt | 300 |
| tcatttatta | caggactaaa | agttcattat | tgtttgtaaa | ggatgaattc | ataacctctg | 360 |
| cagagttata | gttcatacac | agttgatttc | catttataaa | ggcagaaagt | ccttgntttc | 420 |
| tctaaatgtc | aagctttgac | tgaaactccc | gnttttncag | cactggantg | tgggccgtat | 480 |
| gaaagaaaac | tttacantag | atgggagaaa | agggaatagt | ncttgaaagg | nagggnggtt | 540 |
| tttttttt | gacagggc | | | | | 558 |

⟨210⟩ 5735

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5735

cgactgtaac ctgctttatt aacacagaaa ctgcaccaca cacatttgaa cctcatagcc 60 aatgaacaga cccagcactt agcaacttct ccctcctgcg ccccagagaa gggagaaaaa 120 gagggagcag aggagcacca gctacttccc aaacagcgcc acggggaagt cctcgccatc 180 actgttgctg tgctgcagct ccccgctctg ccccagctct ctcccaacat cttccatgag 240 ttgctccagg tccaggtcac tggaggcttc gtcctcaagg gggacacttc cagcctcctg 300 ggtcaggggt tcccggtgtc tgggctcttc tttcgcagat gaggggcagg cccccttaca 360 cgctgatagg cccaggttct ttggcactgt tctaacttct tttccctctg aaaagctggc 420 tgccaaggcc ttgctctggg gagctttaaa ttttttctta aggctggttt ctctccttnc 480 ttccttttcc aactcttcct cttctccttt ttctttanca ngatcctggc tggttaaaac 540 caaaaactgg aagctttttt ttcc 564

<210> 5736

<211> 571

<212> DNA

<213> Homo sapiens

<400> 5736

acacaaaata ctttatcagc agctgttttc atcaaaaaat caagtcagtt tcacagttga 60 aaaagttaca cattaaaata ttttacaatt cattatatat tcaccaggtt cccattttct 120 aatgggcttt taatataaag cagaatagaa gggaaaatct caaagttgat tactttgaca 180 ctaagtttta cataggacac taagaaccac aaaaagctta ggttctattg taaaatagca 240 accaaattcc attcttcttt taaaaatcca attagaaaca tctttttaa aaaaacaaat 300 tccacaataa gagtaacaga tttcaaatta acagtagtct aaaaatcttc aaaataaatg 360 gttttgtata gctgagaata tggtagaaag tgaaagcata attttccaac agtcatttct 420 tactacagtg ngtttaaaat tatttttatt acttttagac tttttctcaa aataattatt 480 540 canggaaata ttcttaaggn gggccaataa aactgnagag gccataggca ggtaccccca 571 tattcanggc canggatggc agctnttgat g

<210> 5737
<211> 539
<212> DNA
<213> Homo sapiens

<400> 5737

60 gacagagtet caetgtgttg eccaggetgg agtgeagtgg tgegatetea geteaettge aacctccacc tcctgggttc aagcgattct cctgcctcag cctcccaagt agctgggact 120 ataggtgtgt gccaccacca ccggctaatt tttgtatttt tagtagagat gaggttacac 180 catgttggcc aggctggtct tgaactcctg acctcaagtg atccacttgc ctcagcctcc 240 caaagtgctg ggattacagg catgaaccac tgcacctgga nagcccactg cttcttgatg 300 360 catgttttga acttcaaatg tggaccagct gacagaggct tcaaggggac ctttagctga ttctgctcaa ggaccagttt attttgttaa catcaccaaa tagcctanag tggggatatt 420 acctaatttt agaagagtct tatgnnctaa naaaagtaga tgcatagggt gatcatgcnc 480 agaaagattt tcatgctcct ctttgctctn ctttccnttg aacatccagg gggnctaat 539

<210> 5738

⟨211⟩ 567

<212> DNA

<213> Homo sapiens

<400> 5738

caaattaatt atttetttaa tteecaattg gtaaatagtg aatggggeag aggageaaag 60 attttettt eettetteet aegetggata aacaagaaca gaaaacagee agttatatgt 120 gaeeetetaa tetteaetea cacatgettg eetteteaet tatgteataa etgeeeaate 180 tgaaacagta cateacagat gaeagatgea aecagagagt teaggaeage tgatategag 240 atateeagea aecggeeete gtgeaaaagg aatteegage ggttttegte eaetetggee 300 atggetagea aageettgge egeeetgeae ateatgteta egetaggtgg tteeaggge 360 gggggetgea tgtgeatgag gttgtgetgg etetgetggt aetggeeat egtgaeeeca 420

tcctctagga agcttatcaa gtttccaatg cttcctttct gcacagctat ggcccttgct 480 gctagtgcgt ccccttggca aggttcgata aaagcgccat gggcatttnt cgacagactg 540 ggntttgggg ancccaacgn acctant 567

<210> 5739

<211> 504

<212> DNA

<213> Homo sapiens

<400> 5739

ggttttaaat aaaaacactt tattgcacaa atcccacaaa ggtctcaggc cctgggtcca 60 agcccacage eccaacetgt eccetggete tgggeetggt etttggtgee eaceetggee 120 tcacatgcca acgtcttctg tggagtgtgc aggtgtccat gagcgttcct gtgttggggg 180 aagcctgcct gggccacaag tagtcaggca ctgtggcagc ctcacgatga agacaggtgg 240 300 ggtggagttg ggtccccacc tgcccaggct caggggccac aggggtctac acagtccttt 360 ctgctttgaa acacgtggta gatgctggtg ggagggaaca tggcacccgg caccaaacag ggagcccact ttggatggc acaccaactg gcagcaatgc cgggcgaacc ccaccatgca 420 480 caaggaactt gnanncancn ttacatatga gaacccccac ngacncggaa ccacgaaagg 504 accccaagga ccacccttga atgg

<210> 5740

<211> 560

<212> DNA

<213> Homo sapiens

<400> 5740

gccatggctc tcaaaccaaa gacagtagct aaagttgacc tcctctcaac ttaaggcaaa 60 aggctggcat acagcacaga agcagaccac cagcttcttt actccacatt tccaccactg 120 gatggcagat attcccctc tagaaatgca ttaattttat ttactaaaca gggcagcagt 180

| tcacaggtct | caagaccggt | cactttgtga | tgttttgcag | ccacacaaca | ggaggctaat | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| aattattta | atagccatac | tgagactctt | cagtttatta | agaaaaatgt | atttcctcag | 300 |
| gcattttaaa | atatatatac | atttaatatt | tttggagctg | tatttgcatt | ggatcataat | 360 |
| agattatgtg | cacatgtgca | attataaaca | taatgtgcta | ccacaggctt | caacaaagag | 420 |
| ctgttaaaga | tactttttc | ccttctcatt | aatattacct | tagaaaagaa | tccccatgct | 480 |
| tggtttataa | aaatctacct | tnacttaaac | agacaggtta | gaacngaaca | tcctatctta | 540 |
| aaggtggtta | aaaaaatctn | | | | | 560 |

<210> 5741

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5741

| aaatcttgtt | ttacaatagt | tacaatagga | acccatccca | atccttgggg | ctggccatag | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| cgaaaaacac | taaatactgg | cagaaaggaa | aacaactgat | aaatccagag | cccaagatta | 120 |
| cggatttgaa | attaatacac | taccactacc | acctctctcc | ctgaaacaga | gaccctctct | 180 |
| gngtaaaatg | aaagagatga | aaggagctta | aaaagctgct | taaaactgca | gaagttcctc | 240 |
| tgggtactga | cctatctggt | tgggcctacc | ttttcaggga | ctgngtccat | gaccaggtct | 300 |
| ccatacatgt | tcatcacctg | gggagaagat | gggaggcagc | ttgccatgga | gggtgcggca | 360 |
| tgggtacagg | gctccccat | gcagagggcc | ccagacaccc | tgntccctga | atcccctntc | 420 |
| aggcctgntt | ctctaccctt | tctncctggn | cactgagcca | agtctgncca | tcaagggccc | 480 |
| aaggcattca | tggcagcacg | tgccgttata | agccctngga | agncentace | atggattgcc | 540 |
| tggnatccct | gggaaaa | | | | | 557 |

<210> 5742

<211> 512

<212> DNA

<213> Homo sapiens

<400> 5742

agacacticc attigctcat gatggtattg taaaatgntt atcaatgcta atgatgcagt 60 tctccagagc cccattttgt tttaagggct gtaagtgaaa ttgttaagaa ataaatttcc 120 tatgtaacaa tacatcacaa aggaaagcaa acagaacaat agccagggcc ttctccccgg 180 ctaataggga tgtcacttgc tggggccttg gaatccatga ggcctgagca tctgggttct 240 300 ttgctgtgcc caanantggg catntgggag tccctggcac aagagggagg gccaccatct tggagaatga ggagaatgaa gatgagatta gagccacctg ggtcttggtc ccagctctgc 360 cacttactgg caaatcagga aggaatgttc ctgagggtct gagaaagcat cattctctct 420 gggccttaat tctcanggca gaatggggca cttgcattgg gaaaaagtng gcaccttaac 480 ntgnttgctn caagggtaaa ggnttgcnaa ac 512

<210> 5743

<211> 551

<212> DNA

<213> Homo sapiens

<400> 5743

ggagacagag tetegetetg teacteagge tggagtgeag tgacgegatt ttggeteact 60 gcaacctccg cctcccaggt tcaaataatt ctcgtgcctc agcttcctga gtagctggga 120 ttacaggtgt gtgccaccac aaccagctag ttttttttaa atatttttag tagacatggg 180 gttttgccat gttggccage ctggtctcaa actectggce teaggagtga teegtetgee 240 tetgeeteec aaagtgetgg aateaeagge gtgagetace tegeetggee tgaattattt 300 tatcaggtta aatttcgtgg gcgtgctaat ggtactgtgg ttttgtagaa tatcttggtt 360 tttaggagat acgtgctgaa aggttttagt catgtgacag gatgactgtg acttactttt 420 aatgattagc tgaatcagag aacaagagag agctggatat gtgtgnggct atgtttagac 480 ctagagaaag agaaagcnna tntngcccat ggtaacgatt ggtaaatctn aagtcccggg 540 551 gnggatgggg g

| <210> 5744 | | | | | | |
|------------|------------|------------|-------------|------------|------------|-----|
| <211> 549 | | | | | | |
| <212> DNA | | | · | | | |
| <213> Homo | sapiens | | | | | |
| | • | | | | | |
| <400> 5744 | | , | | • | | |
| aagagagaca | agatcttgct | acgttgccca | ggctggagtg | cactggcatt | atcatagctc | 60 |
| actgcagcct | caaactcctg | ggttcaagcg | atcctcctac | ctcagccttc | caagtaggaa | 120 |
| gggctacagg | catgcaccac | catgcccagc | taattaaaaa | aattttttt | gtagaggtgg | 180 |
| agtctcacta | tgttccccaa | gctggtctca | aactcctggc | ctcaagcaat | cctcccacct | 240 |
| tagcggttgt | agacatgaga | caccacacgc | agcctaaacc | ttttcttcta | aagaaccctt | 300 |
| aacacaaggn | caatatgcaa | aacaaaatac | agatactaca- | gaataagctg | gagtagcaga | 360 |
| gagagacata | agataacctc | accttataca | atgcagaaca | tctgncttta | atcataattt | 420 |
| ttttttttt | ttgagccagg | gctctttctg | ggttcctggc | tggagtgcca | anggngngac | 480 |
| acnggctact | gggagcctta | anccctgggt | taaaagancc | tctgcttanc | ccccaggaa | 540 |
| cttggactt | | | | | | 549 |
| | | | | | | |
| <210> 5745 | | | | | | |
| <211> 499 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| • | , | | | | | |
| <400> 5745 | | | | | | |
| caggaacagt | aatttgactt | tgtctatatt | aaaaatcata | aatagtcaac | aaatacaaaa | 60 |
| aatacaaaga | gtttgcagat | atgatcagng | cattataggn | gttttcaaat | ttctcctatg | 120 |
| ataaattaaa | aatgtaatgt | tggacattaa | tttcctaaac | ccaatgctca | gcaattttct | 180 |
| caaattgttt | cgcttttccc | aagagacttc | agaaccattc | cctggagnga | attatttcca | 240 |

atggtgaaga gtaatggatg gatgggatga cattctcaaa aaaatcttgc tcctatttca 300

gaagngtcac tccagccct tgaaggtcca ggaaacctgg ctgagtagtg tggtctatgg

| aggtgcatgg | gcttcagagt | caggccaacg | ttgatcctga | gtcccagcca | gctgcttant | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| anctgnggga | tagttatacn | aggacacatc | tagtgatggg | gctcaagctg | aagacngnta | 480 |
| tctggcgatg | cnaaaaacc | | | | | 499 |
| | - | | | | | |
| <210> 5746 | | | | | | |
| <211> 563 | | | | | | |
| <212> DNA | | *. | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | • |
| <400> 5746 | | | | | | |
| gttcataaca | agttgatgta | gacgttcctt | cagtttatta | tattcacgct | cttttctctt | 60 |
| catatcatga | ttatactgag | tagctcgact | tgcaatgata | ttttgtaatt | ttttgcacct | 120 |
| catctttctc | attctttagt | agctgatgca | aattcctgtt | cttacattgt | aactgtctgt | 180 |
| ctctttcctg | aagcccaatc | atttccctcc | tggaggtttc | cagttgttcc | ttaagttttg | 240 |
| agtagcagct | ctgtagatgg | tccatatcac | ttcccagctt | caaattctgt | gtctccacat | 300 |
| tttcctgagc | tagaaggttc | ttccgctgaa | gcacaagcag | ctcattcata | caatttagta | 360 |
| cagctactat | atttaactct | ctctttgtct | ctttaccttt | ggattcttca | tataatgaag | 420 |
| gaaaaccaaa | agtagtcaat | tcctggtagg | agaaaatgnt | ttcttaaagt | tggttacagn | 480 |
| tgaggagata | ctggcagagg | atacaaactt | tcagntagat | aggaagaata | agnttaatag | 540 |
| gactattgnn | ccacccnggg | gnc | | | | 563 |
| | | | · | | | |
| <210> 5747 | | | | | | |
| <211> 550 | • | | | | . 1 | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5747 | | | | | | |
| ggaatatttc | aatccatgtt | ggttgaatcc | acggatatgg | aacccatgga | tatggagggc | 60 |

出証特2002-3046776

tgaccgtata gttggaattg cagttaacag tcaatgactg cagaactttc tggcatctag 120

ttcgtggggt ctccgggggc ttttcatgtt taacttccaa tctgtgaaga attgttgcag 180 gtgatcacct gccttcctac cccacacac aagcacagga gacccctgat taacaacaaa 240 ccaaaagtgc atgctgcttt aaggaagtaa ggatagaact caggaatgca gtttcaaaag 300 atcacaggaa cttcaagaga atcttcctac catatttagt gctttctcca attttcggag 360 aatetteaac agaatggtag gaagtaagge aaatacattt gattaggett atgaggagaa 420 attagaggaa agtggttgta gaagtgattt aatcactatc ctgcatatta aaagatcaga 480 tnggatacct ggtcaatggt tcnttggttt tgaaatggag ncttgctntt ggancccagt 540 550 tgganngcca

<210> 5748

⟨211⟩ 558

<212> DNA

<213> Homo sapiens

<400> 5748

gaatggcaga gggaggttta atggtgtcac cttgtcttgc taatgagcca acaaaaaaaa 60 aaaaaaaaa aaaatgcaag taaaaaaaag tttaatcaca cagcacttta tacagatatc 120 gtaagcagta ggcattcaca tctccacatg tacaatgcac tgggaagcac agccccacca 180 gtcactccgg gtgtttctca aacaagatac cgactcggtt ccaaatgcca cggtgtgtgg 240 300 agcccactta aggctgacaa gacgcatcat gctttggctt tttttgnctt tttttctaat 360 aagagttaat atctttgctt ttgagttttt ttttcaacct taaatattca tacatacacc 420 480 aaaaattnca tagcttgcaa tgngctcaac agcatcctnt nggcctggag cttacattnt caaagettan aaaettggaa aeetttggee tgtttttggg enetaggaan eeeeegeegg 540 558 cggncccttt ggatgagc

<210> 5749

<211> 541

<212> DNA

<213> Homo sapiens

<400> 5749

gcagtggctg gtattaagaa agtttttctt atattaagaa agtttttcct ttcttaatat 60 ttagtgette etteaggage tettgeaagg eaggeetggt gttgacaaaa teeeteageg 120 tttgcttgta tgtaaggatt ttatttctcc ttcacttata aaacttagtt tggctggata 180 tgaaattcca gttagaaaat tcttttctct aagaatgttg aatattggcc cccactctct 240 tttggcttgt aggttttctg cagagagatc tgctgttagt ctgatgggct tccctttgta 300 360 ggtaacctga cctctctct tggctgccct taactttttt tttttttat tgagaaggag tetegetetg ttgeeeagge tggagtgeag tggeaeatet eegeteaetg caageteege 420 480 ctcctgggtt cacgccattc tcctgcctna cctnccacgt agctgggact acaggcgccc 540 accaacacgc ctggncaatt tttggaattt tttaatanan atggggttca nccgggtacc 541

<210> 5750

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5750

60 aaaaattatt aaaacattta atcactgaaa acacaaatcc acattaggaa attatctttt aggatactta tacaaaactt aacacaggat tattgacttc actgttaagc aatgtgcata 120 180 ttgctactct ttctccttca ctaatttttc tatccttgga attaaagatg tgactgcaag 240 tcttagggca gggccagaac ccaacagatt tttttgtttt gactcagtca aagctgaaaa 300 ggcagcatca cataaataaa cagttgaaaa gggtaataaa aatttcattg ccctttcatg 360 gagttctggg taacttgtct ttgcatttat ccaaaactga gttacagaca ctgatttaaa tagtgcttgt aatcctaaat ctgaagatag ctctgttagc ttttcttctt cgaagtcggt 420 gagattatta ttttggtgat tcataaaagg gtgaattatc cacaaatttc ctgaacgcaa 480 gtcttggtct ggtgggaaaa cagcctggac ccttgggaaa agtccttcca gggctcaaaa 540

| taatcctggg | anggctggca | tatt | | | | 564 |
|--|------------|------------|------------|------------|------------|-----|
| <210> 5751 | * . | | | | | |
| <211> 543 <212> DNA | | | | | | |
| <213> Homo | sapiens | , | | | | |
| (400) 5751 | | | , | | | |
| <pre><400> 5751 gcaaggaaac</pre> | tgcatgggta | caaatttcca | attcatactt | aacaaggtgg | ggaaacgggt | 60 |
| cattcttggc | ctgctccaga | acaaggggcg | agtctatgca | ctcctggagc | agcaggcgca | 120 |
| | aatgtgaggc | | | | | 180 |
| agagtctctt | tggttgattt | ttacaggaga | gaagaaggag | tgaccagcaa | gtgagaggag | 240 |
| gcctgcaagg | gtagaggaag | gaggatgaat | aataataatc | acaatacttc | tagtcctttt | 300 |
| ggaaaatatg | ttctcatcct | tcaagtcgac | gtcaaatgct | tcccactttt | tgaagcttcc | 360 |
| ctgcctcccc | cactaacctg | ggtgtgaagg | ttctttctca | gatgtgtctg | gctactttgt | 420 |
| gccaggctcc | ctggtanaag | cttgattaat | gctattcatt | tcattcttac | ncaggnattg | 480 |
| ntggcataca | ttaaaaaaga | tggaactant | cccaanagtt | taattggctg | ccaaaagcnt | 540 |
| nca | | | · · | | , | 543 |
| | | | | | | |
| <210> 5752 | | | | | • | - |
| <211> 471 | • | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | • | • | | |
| | | | | | | |
| <400> 5752 | | | | | | |
| aagagatagg | gtcttgcttt | gtcacccaga | ctggaggaca | gtggcatgat | cacagcttac | 60 |
| tgcagccttg | acctcctggg | ctcaagggat | cctcccacct | cagcctcccc | agtcgctgga | 120 |
| actacaggca | cacatcacca | cacctggtta | attttattta | tttattcatt | tttgtggaag | 180 |
| ggtctcacca | tgttgcccag | gctatacaag | gcttaatttt | aaaatttaaa | atcagccggg | 240 |

catggagact ctaactgtaa tcccagcact ttgggaggcc gaggcaggtg gatcacctga 300 ggtcaggagt tccggacaag cctggccaac atggtgaaac cctgctctac taaaaataca 360 aaaaaatgag gcgggcatgg ngggtatgtg cctgnaatcc cagctactca ggagactgag 420 gcnngagaat cgnttgaccc aggaagtgga agctgcantg anccaagatc g 471

<210> 5753

<211> 575

<212> DNA

<213> Homo sapiens

<400> 5753

gttactctct taaagtggca gaaacagaaa agttgtggct ctgctggtag actagtttgg 60 aaacactgat teggacaaca caatttgtaa tteagataga etetttattg gecaaatgga 120 ttccggtttt gaagacgatt cccaaaacgt tctgatatag aactcttctg gccttaggcc 180 tagtttagag atttgtggga agacttcaaa ggttaccatt ttcctctgtg gatctgtaaa 240 300 attaaccatg aatacctagg tcagatttcc tttttcctac ttcactctgt ttgggcttcc 360 tcagggaaga tttcagctac ctacctatag gagaaatgcg caatcaatta ttgatttaaa tcaaactctg aaatatcata tgattatgat aaagggagta tcagcaggtg aatacattaa 420 480 gccaggcaga ccctttttgg aatagcttta aanggccagc ttcattaggc accaaaatct ttcaacttca aacttttgca gccttatcct tttaaangca nccnttgnaa aggngcttcc 540 575 ttaaccagta cttggaaaaa ggttggtata tttca

⟨210⟩ 5754

⟨211⟩ 590

<212> DNA

<213> Homo sapiens

<400> 5754

gtggaaaaag tagaagtcag acaaggacca ggaactggcc aatgtacatg aataaatgga 60

aatttgcttc tatctctgtg cttggaagca agctcaagcc aagaggataa gcaaaacaag 120 tctaagaggt caccaggccc ctgatgacaa gctaaattca gattgacttc tatgtgtcag 180 cccacttagg ccagtgcatt tgctgtatgt tgggtggctc tgaacacagc agaaagggga 240 ctaaatgcag tactgtctta cagtgatctg gaaggccttc cccacgttcc aacctgctga 300 agctgggaag gcagcaggga tagttcatag gcttgctggg gcacaagccc agtcagaagg 360 tctcctgccc cattctctcc ttggaatatg tcctcactgg ctgagcatga aggaagctgg 420 ttcaaagggc agaataaacc atggggaatg ggaanggcca aagggccaaa agttnccacc 480 ttttgagtcc actnaccttn atctgggggn ggcncatatg ccaaaacctg gcggangcca 540 590 gccaatggcc tttttttcct tgggccttta acccttcaan aaaaggnttg

<210> 5755

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5755

gagacaaagt ctcgctttgt cgcccaggct ggagtgcagn ggcatgatct cggctcactg 60 120 caaceteege eteetgggtt caagngatte teetgeetea geeteeegag gagetgggat tacaggcgcc tgccaccact ccacgctaat ttttgnattt ttagtanaga caaggtttca 180 ccacgttggc caggctggtc ttaaacttct gacctcaggn gattcgcccg cctcagcctc 240 300 ccaaagngct gggattaccg gcgtgagcca ccatgcccgg cccttttctc cttcttcagt 360 acctgggggt ggctggacga gggactgcag aaggactgtg gtgctgggag gcacagctct 420 ggatggcatt gggacagngg ttagcactac angtttgggc tgcaatggcc ggntttcggg 480 tggcaaggct ttgcctgang agccntcaag ggatgggccc atgccgatct tggaaagttc caatganggg gctgggaaat tccccaggag ggttcttnaa ggcacaggga ctttggttaa 540 557 tttcaggacc cccnttn

<210> 5756

<211> 529

<212> DNA

<213> Homo sapiens

<400> 5756

| actgtggact | tgtagtatag | tttgaagttg | gatagtgtga | tacctccagc | tttcttcttt | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ttgcttagga | ttgtcttggc | aatgtgaact | gttttttgg | tttcatatga | attttaaatt | 120 |
| agtcttttct | aattctgtga | agaatgtcga | tggtagttta | atgggaatag | cattgaatct | 180 |
| ataaattcct | ttgggcagta | tggccatttt | catgatattg | attcttccta | tccatgagca | 240 |
| ttggatgttt | ttccatctgc | ttgtgtcctc | tttgatttct | ataagcagtg | gtttgtagtt | 300 |
| ctccttgaag | aggtctttca | cttcctttgt | tagctgtatt | cctaagtatt | ttattctctt | 360 |
| tgnggcaatt | gtgaatggga | gttcattcat | gatttgcatt | tcttcttgnc | tgntggtggt | 420 |
| ggtataggaa | tgcttgngac | ttctgcacat | tgactttgat | ctngagactt | tgctaacgtg | 480 |
| cttatcactt | aaganncttt | tggcctgnaa | agaatggggt | tttcganan | | 529 |

<210> 5757

<211> 571

<212> DNA

<213> Homo sapiens

<400> 5757

60 gagacaaggt cttgctctgt cacccaggag tgcagtggca cgatcatgga tcactgcagc catgacetee tggacteeag caateeteee ateteageet eccaggtage taggactace 120 180 ggcgtgtacc accacactcg gtattttttt taagagacag gatctcacta tgttacccag 240 gctggtctca aactcctggg ctcaagcagt cctcccacct tggcctcccc aaaagtgatg 300 agattacaga catgagtcac ctgcctggcc tgatggtaaa gggggttata acctgttgga aaataaatta gggttagatc acactaactt caaaatgcaa tcatgatcat acatggtaag 360 ttcctcaaaa aattaaaaat aaaattacca tattatccag caattctact tcaggggtat 420 480 atgcccaaaa gaactaaaag caaggacttg aacagatatg ttcaatcacg aacccatgtt 540 catagcagca tttttcncaa tagtcaaagg ntgaaaccac cccaangcta tggaatttgc

| ccggttaacc | aaagggggat | ttttccttgg | g | | | 57 |
|------------|------------|------------|------------|------------|------------|-----|
| <210> 5758 | | | | | | |
| <211> 540 | | | | | · | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5758 | | | | | | |
| aatgaagact | tctcagttgt | attatatttt | taaaaattta | aaatgaactt | gtatatgtgg | 6(|
| aaggattgat | gatctgtact | gactccagat | ggttatgttc | tcctgatgac | agatggaagt | 120 |
| ccaggaggcg | gggccatccc | aagtgtatgc | cagcaagata | tggttctact | gctggtgacc | 180 |
| tcatagaagc | agagtcatca | ctggagaaag | acatagctct | catcctgatg | ggcatctcct | 240 |
| gcccctgagg | cctcagttag | ctgcacttgc | cttctgcatc | tcctggggat | ttcactccat | 300 |
| cagttagcat | cttgnttact | gccttcccat | gtgatggctg | tttaagctcc | agagtccctt | 360 |
| actctccttc | ctgccactat | atcatcgata | tgggtggcct | gggaagggat | ggcatttatt | 420 |
| catgacnggg | ggcaagtgtc | cagatcccag | atctaccgaa | aatctttcat | tctggtgggg | 480 |
| cccctgntt | ccatcctggg | ngncccntcc | ccnaacttta | tttaacaggc | anggncatag | 540 |
| | | | | ÷ È | | |
| <210> 5759 | | | | , | | |
| <211> 556 | | | | | | |
| <212> DNA | | • | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5759 | | | | | ٠. | |
| cttaagtgtc | tttaatactc | cactcagggc | agcccctccc | tctactgaga | ggctcttggc | 60 |
| tctggcccca | agagcagctg | gaaggccctg | gcctgacttc | accacttgat | gtccaggctg | 120 |
| tgtgtgccac | gctcctggct | ctggtacgtg | gtatgcagca | cctctcgggc | cttgggggag | 180 |

ttgatcccct ccagccactc ctggtacagc tcctgcacgt gtgcactgga ctccggacgc 240

cgcacaggga tgtcagcgta aatgccttcc atctgccgca gcagggcctt atccgcatgt 300

ccgtctggag tctgggcttg gcctctgcca tttaagcatc ctcagcacag gcgaggacct 360 ccacaaagtg gaatgggaa cttgcccttc ttaagcttta aggacatgtc tggatgttc 420 naaagccata ggctgcagca aagcgtacac cacctttccg tctttaang gtgacctttt 480 ggaaagcttt ggttttaagg cttggnaagn gacctctcaa atcctngttg naaaagtctt 540 ggccnatgnt taaaat 556

<210> 5760

<211> 580

<212> DNA

<213> Homo sapiens

<400> 5760

gtagagatgg ggtttcacca tgttgcccca ctggtctcaa actcctgggc tcaagtgatc 60 caccettete agetteceaa agtgetggga etacaggegt gagecaetgt geetggeetg 120 tatctacaga tattaagaaa aactttgggc tgcatattta gacataactg cttttttgca 180 attttgattt catattctac tgctaagatt tcttatatgg gatttgctgc atttcacaga 240 aatctatcta ttcaaaaatc acactcatgc tgattttgct agttcaaaag cagagatatg 300 accactataa ggaaagcccg tgttcacttg cattggtaat attgaagaaa taatacactt 360 catgggaaat aaatacagga tatttacaaa atctttggta aaacttccta agaagtattg 420 gttggggttg gttttccgga gaccagaagt ctncctttgg cacccagctg gaatgcaatg 480 genegacteg gttactggna accttegett eeggggttaa gecaatettg ggeetaacet 540 580 cctgagaact gggattccga agcccgtgcc caccagntan

<210> 5761

⟨211⟩ 521

<212> DNA

<213> Homo sapiens

<400> 5761

cgtaactggt gtaagccacc aggttctccg tgtactgcaa gatcgacttt acaaacttta 60 ggtactgctg atactcatgc gcattcttcc cacaaacagc atgaatgttg accaactcca 120 gcgcaatgag taacagtatc aggctgagca caggggacag tagtctgata ctactccaca 180 tacgcaggta gttctgccgc tggcgagacc gcagcgtcct ttccacccac tgcctgtgtc 240 teagetetga ggeaaeggtg acetggetgg acacaeggeg geaetgtteg etgatgette 300 agagcacaac cagcactccc agcacaatcc tggggcagaa cagggtggga acaggtgtgc 360 tgcagagctc acggagaagc tggggccacg tctcagtagg aagacgatcc aagtccttta 420 acacacaacg attctnaggc atatggngat cagctcatcc gcattttttg gaatcnaaaa 480 521 ntngcagggc atttggttca anaattattt tctaatntga c

<210> 5762

⟨211⟩ 533

<212> DNA

<213> Homo sapiens

<400> 5762

ctttttcttt ttttttttt ttgagacaga gtcttactct gtcacccagg ctggagtgca 60 gtggcacaat ctcggctaac tgcaaccttc cacctcccag gttccagcga ttctcctgcc 120 tcagcctcct gaatagctgg gactacaggc atgcaccacc atgcctggct aagtttttt 180 atttttagta gagatggggt ttcactatgt tggccaggct ggtctcgaac tcctgacctc 240 aggngateca cetgeettgg ceteceaaag tgetgggatt acaggegtga gecaceatge 300 ccagctagct ctgcctcctt ctaaattaga tctggtcagt ttaccggttt ttattttggg 360 atcgtactag tactcttcaa ctgaatttta accttacttt gaaatattta tatctggctt 420 taagaattta aatgaagaca ttttcacagg actaattcta gaaaaaaggc tctgngngac 480 antnaaaatc tataatataa nttaanattt ccagaactgg cttgaaaatt ngg 533

<210> 5763

<211> 462

<212> DNA

<213> Homo sapiens

<400> 5763

gagggcggg caaaggagc atgacggga gagtgagga gaaagagaa aggaaggcca 60 gggtgggagg aaggatcagc taaatctgag ggaaagaaaa ggaaaggaa gggactattg 120 catagcagat gcaaatgaag ggacttgggg ctagtcagga agaaagggaa agggaaggaa 180 ggcaagagag agggtgaag ggaacctcag gaaggggtgt taaggacaac cggaaaaatc 240 atctagtaat aaaactacaa acagaccaaa tatatataat attatatat tataaataac 300 agctggctat ttacagggg acacacaca ggacacacac acacacggat ccagggagt 360 gggggctgaa agatatggct gataggtga ggaacgctg agggttgggg gagaggccct 420 tcttctaggc agggcaaact cctccgggga tttaannnnn nn 462

<210> 5764

⟨211⟩ 513

<212> DNA

<213> Homo sapiens

<400> 5764

| gagacagag | ctcactcttt | ggcccaggcc | ggactgcagt | ggcgctatcg | cggctcactg | 60 |
|------------|--------------|------------|------------|------------|------------|-----|
| caageteege | ctcccgggtt | cacgccattc | tcctgcctca | gcctcccgag | tagctgggac | 120 |
| tacaggcgc | caccactgcg | cctggctaaa | ttttttttt | ttctattttt | agtagagaag | 180 |
| gggtttcaco | gtattagcca | ggatggtctc | gatctcccga | cctcgtgatc | cacccacctt | 240 |
| ggcctcccaa | ı agtgctggga | ttacaggggt | gagccaccgc | acctggcctc | cccttttctt | 300 |
| tatagcacci | tcatacttaa | caccatgaca | tcaaatgaca | acgtattcac | acagaaagca | 360 |
| ggcattttgt | ttactggttt | atttatgttt | acttatgcaa | ccaagagaac | ctatatggct | 420 |
| gtcatgggag | ccctaccttt | tagaaagaga | acaaccncat | caggacaagt | tntaaaacac | 480 |
| ttntggatad | naggngggan | taacctttga | ncc | • | | 513 |

<210> 5765

<211> 543
<212> DNA
<213> Homo sapiens

<400> 5765

ggatattaat cccatggtgc aaggatttcc tgcaaagtac ctttaatgtg tttaaatcag 60 cagcaagcat taggacatgc tattttggcc ccataagtta ggtgtgtagc actacacatt 120 agacaccaag tcatcccaac caatatttat ccatatgaac agataaactg aacaaaaaca 180 tagttctgat aaaacctgca ttcacaacct aatgtagttt aaagtaaatt ttttcacaat 240 tgagggctgc tatttaggac tgttttgtta ataataaaaa caggaattat atagaagata 300 aaacaccatt ttttactgct atataatgtc ttgctatata aaacataccc tcaacaagtc 360 420 aaaatattta aaaccagtgt ttcaaatacc aaaaatcaca gctatgttac tggtcaagta 480 acttcactca ataaatggta ggactggant cttggangga aaaaactgna gccaagncag nacctttaag ttggnctcca aggtttaaaa ggacggaccc tactttgnaa acggaaaact 540 543 gcc

<210> 5766

<211> 556

<212> DNA

<213> Homo sapiens

<400> 5766

tatatttaat ceteatetaa ttaggaggta taagtaacee tattgtacag atgaagaaaa 120 aacatettge tgaaattaca agttaatgte teagaaacag aatteaaact eagatttgte 180 tgaeteeaaa aegtaetttg tagtaetagg gatataetgg aaaageeett eageetttta 240 tatagteaat tgtetgtaaa aaggaeacag teeaaacaat gaaetgtaa eatatttae 300 attattgaat atatacatgg agaetgtaaa gaggtaaaag etetaaaaat aatggattea 360 eagaaettga aaataaagte aagaetgtgg teteetetg aaaetgaata gagtaaaaca 420

| gacgatgaag | aaatgagcta | tttgcagagg | taataactta | cccttaangg | naaatttcaa | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| atatctttt | ttttttttt | tttgggaaca | aancttgntt | tggcaaccca | gctggaannc | 540 |
| ttgggcccaa | ccttag | | • | | | 556 |

<210> 5767

⟨211⟩ 523

<212> DNA

<213> Homo sapiens

<400> 5767

| gaaaagccag | accttgtgcc | cttgttttga | acaccgactg | ggaagatggg | gcttaggtaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| cagccaaacc | tggctgtcag | ctgtgtggga | gccaccaccc | tctctgggaa | gagttcctgc | 120 |
| ttctgtatgg | caagcataaa | tcaagctcag | tctgggttat | ggagaagttg | aaaattgttt | 180 |
| tgttcctcat | tagtttataa | ttgtatgaaa | tacgatttta | atgaaaactt | ttcagaattc | 240 |
| acgtttgtgt | agatatttca | gagaaccatt | tttactttac | atcctaaaac | tgccttttcc | 300 |
| tatggttttg | tcaataaaac | actatgatgt | tggtctgttt | ccttttatat | ctcaagtctc | 360 |
| aaaactttaa | aagacagtag | atatttgngg | gtttctagct | aaatgagggc | caagattgga | 420 |
| ctttttcaac | taaattgaat | catgtagtaa | tatctgattt | catagctttc | tgggggaaaa | 480 |
| agggaggatt | tggaatanca | nncntgcang | gcaggacnng | taa | | 523 |

<210> 5768

<211> 537

<212> DNA

<213> Homo sapiens

<400> 5768

aagtatttta ggtaggtatc accatttagg ttgggtagaa gtaattctta aatcttaaga 60 agcgatcata gatatgtgga agccaatagt cattactagg gatcatgatt cggaaaaaca 120 gcctctcttc aatgatcctg aatgagccct ttgaattcct ctcctgcaac tgatctcccc 180

atggggagtg gtgagggatg ggtggcagga agggacccta acccaaagta gttcagagcg 240 ggtgagtttt aggagcattt cggtaccaaa cacagcttca cgattgagaa tcatcagtca 300 tccccagctt tctatttcat ttgctaacct ctctaggaac aactggatgt tgtaaatgtt 360 tctcatctgg ccttaaaatc catgaaagct ggaaaatcac aaggcatctg ngcatatact 420 ggtggatttt aatgagaagc ctggggttng agcccngaaa taaccngctt tanaagccaa 480 gtagnaaagg ccctggattt tgacctggcc atgggnntac ctatttgagg ggggatg 537

<210> 5769

⟨211⟩ 531

<212> DNA

<213> Homo sapiens

<400> 5769

cttgtcatgg ctattcaggt ttttagttca gctgctgagg cggtgagaag ttttcatgtc 60 agacgtacag gtagcatttt accccacttt cctctgtcca aagcgacata caagtaacag 120 180 gcctgcttcg tgctgccatt cagaacaggc ataaaaagca aatcatttac tttccggaaa cagagtccag ctgcacagag cattcgcggt tattcccttg ttctatcatt ttctaccacc 240 caacaacatt cagcaaaacg agttaataat agttactggt gtttgaggaa gggtaaaaaa 300 ataaaataaa ataaaataaa actaaagaac acacatggca gagatacgat attactgcaa 360 aagcaggtga atgcgggaac atccttggct tgccaggctt tatgtgaagc ttgcattttt 420 cttatccttg gctttcttgg tttgctgggc cccaagatgc tgggcctggg actgtagtaa 480 ctgaaccggt ggctttcttc ttctggaaag tggtcacctc cttcttaagg n 531

<210> 5770

<211> 548

<212> DNA

<213> Homo sapiens

<400> 5770

atgaagattt attttttaag ttctaaggaa ctttagtttt cttatttgta gctaattctc 60 ttcttaaaat ttatttattt tttacattag tctctttaca tttatttata tatattttta 120 ttatacttta agttctaggg tacatgtgca caacgtgtag gtttgttata tatgtataca 180 tgtgccatgt tggtgtgctg cacccattaa ctcgtcattt acattaggta tatctcctaa 240 tgctaaccct ccccactccc ccaaccccac aacaggcccc ggtgtgtgat attcccctt 300 ctgtgtccaa gtgttctcat tgntcaagtc ccacctatga gtgataacat gcaatgtttg 360 gttttctgtc cttgcgatag tttgctgaga atgatggttt ccagcttcat ccatgtccct 420 acaaaggcat gaactcatca ttttttatgg ctgcatagna ttccatgggg natatgngcc 480 ncaatttett aateengget ateattggtg gacattttgg ggtgggteec aggetttggg 540 548 tattggga

<210> 5771

<211> 540

<212> DNA

<213> Homo sapiens

<400> 5771

gagnggcagc gcctttattt gngggggcct tcaaggtagg gtcgtggggg gcagcgggga 60 ggaagagccg anaaactgtg tgaccggggc ctcaggtggn gggcattggg ggctcctntt 120 gcanatgccc attggcatca ccggtgcagc cattggtggc agcgggtacc ggtcctttct 180 240 tgttcaacat agggtaggng gcagccacgg gtccaactcg cttgaggctg ggccctgggc 300 gctccatttt gngttccagg agcatgtggt tctgtggcgg gagccccacg caggccctga ggatgttctc gatgcanctg cgctggcgga aaagcgcatt gaccaccggg ctgccgggcg 360 gactagtggc gccttgaana ggaagctgag cagggacagc acggggtgga aaggctgcgg 420 cttngggtcc atgtcagtgc aaaaacttac gcccttggac annttgggca aacaacgctn 480 aggtccaaca ttaatgggtg ccggncaaca ancgaggtct ttaaaccgtg ttgggcaaan 540

<210> 5772

<211> 542

<212> DNA

<213> Homo sapiens

<400> 5772

| agggtctctt | ctcctgcctt | ctcattatta | tggggttttc | cttcttctcc | atttatttt | 60 |
|------------|------------|-------------|------------|------------|------------|-----|
| gaagtatttt | tatttttcaa | ttcattctct | ggcttctgtt | ctgaggaatt | atctattatt | 120 |
| ctcttatttg | aattttctga | gtcactgctc | tcagaaaagt | ctgaaacatt | gtcagttcga | 180 |
| agtcttttca | tatttagttt | cttttcatcc | tcctcaggtt | tccttctttt | attcatcaag | 240 |
| tgtttgtttt | tacctttagg | attttctcct | cgtgatatat | aatcatattt | ttcctccttc | 300 |
| atcttctctt | catctggtat | actgctatct | gagcccttcc | tcttattcgg | acggatactt | 360 |
| ctttgttgct | gttgctggtg | tgtattctgt | tttggtacag | cagcttggga | gttcattgct | 420 |
| ggtctgggac | tatttgcttg | gcacctgtat | aaaggctgng | aacagcggtt | gacgtttgaa | 480 |
| tggcacnaaa | ctgcgtcgng | atgtaatgcc. | aaaatttcan | ccttttaaca | aagaggggac | 540 |
| ca | | | | | | 542 |

⟨210⟩ 5773

<211> 280

<212> DNA

<213≻ Homo sapiens

<400> 5773

| a | catttttat | aatgngtatt | tattattcaa | atagcttgac | agcaaagtgt | tggaaaacga | 60 |
|---|-----------|------------|------------|------------|------------|------------|-----|
| а | gagcaggaa | ttccgcggtt | cctgcccggc | çtcgccatcc | agctgggaga | agagcatggt | 120 |
| C | atttccttc | acttagtcca | cggccactcg | gcgctcatcc | ccagcacagc | cctcccagg | 180 |
| C | cgcggcaaa | gactgttgct | gtcctgctga | gggatgtgcc | cccggggatt | caatcgagat | 240 |
| t | ctgtaagat | gtgggggatg | tgggtggcgg | ngnggnnnnn | | | 280 |

<210> 5774

<211>.403

<212> DNA

<213> Homo sapiens

<400> 5774

| gaacaagaca | aagatgaact | ttatngagng | ttacaacagc | tcagagacct | ccagggggta | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tttcctctct | gtaggcaggt | tgcccatcag | gtattcagtt | ctcagtagag | aggaggccct | 120 |
| ggagaggatg | gctcctctct | gcaactgatc | gccctaangt | ctgcagctct | cagaagagag | 180 |
| gaggccctgg | agagggtggc | tcttctctgc | ccacaggttg | nctctgcagc | tgncancagg | 240 |
| gagggtaggn | cctttctgca | actggctgtt | ccatcatctc | caactatcag | cagagagggt | 300 |
| agctcctctc | ttaggcttgt | tgacccatag | gtctctgccc | tctgggccct | ctggcagncc | 360 |
| tntgccctac | tntggctgaa | cccagggttt | ttanggnccn | ccn | | 403 |

<210> 5775

<211> 549

<212> DNA

<213> Homo sapiens

<400> 5775

| caggggagtc | aggatgactg | gattgggggg | gtgttggggt | aagggctcca | aaccccagca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ctgcattgta | ttttggagga | cgacctctct | tccgggtccc | agggtgcatt | gtgctgttta | 120 |
| ggtatgtcac | tgcactcttc | ttacgctctg | gctcaaagac | tgctccactg | tagaccggat | 180 |
| ttgctgttgt | tcttctttt | cgctcttgcc | tcttgctttg | gatttcttct | agatggtcat | 240 |
| gtgttaccaa | ccctagagac | accatgaagg | caagtttctg | agggttctcc | tcccgttttg | 300 |
| gtttgggtgc | agcaggtggg | gtgatggtgc | ggctctctgt | ttgtttctca | tctgnttctg | 360 |
| tgtgagattt | aactgtctgg | ttttcaagac | ttggcttgct | aagctgtaca | agtttgaagg | 420 |
| ccaacnaagt | ctgggccctg | gagtanctat | cacaatgctg | gtganctggg | cccatgggga | 480 |
| aaccgtttgg | ctatggttgc | antctgncca | ttgacnacac | cggaccgggt | ggattggaat | 540 |
| ctgggatng | | | | | | 549 |

| <210> 5776 | |
|---|--|
| <211> 530 | |
| <212> DNA | |
| <213> Homo sapiens | |
| | |
| <400> 5776 | |
| cttaatattg agtttattag ataaagacaa gaaaaaatgg ggcttgggga aattggggct | |
| tctggggttt taaggagcat gctgaaagaa cgtaagaaac aaaacatgaa gggaaatgga | |
| aatgttaccc tcactccctt cctcctgct gtccagtgtg gatgccacct ccagcctgca | |
| ggacggagcc ccctcccatc atcacacagt gcacctgggc tctgcagccc cttgcctcca | |

atttgagaaa ggcttcccta acnttggccn aaggaanttn cccccaaatt

ttgcagccgc agcaagaggc ctccacttgt ccgtcaggga cgctccaagg aaggaaaaag

ccgccccgg acaggggaga ccactgtgtt ctctgtgggc aggtggggca ggtgctccag

ggaaaggggg gctgaggtag ggggcccagt gatcaggcac ctgatcccaa aagtgggcct

tggctctttc tcctggactg ggaacttcgg cagaagtcan gctncacaat gngccccaca. 480

<210> 5777

<211> 541

<212> DNA

<213> Homo sapiens

<400> 5777

| 60 | agaaacagtt | aacttttaca | tcttagggaa | tgagctttta | acaatgggat | gagtgtggaa |
|-----|------------|------------|------------|------------|------------|------------|
| 120 | ttcctcatgt | tttacaactg | acctggaaac | gttattgtag | gctccagaaa | cactgagagg |
| 180 | aatctacttt | ttctttaagc | aaagctttaa | tttcatcttt | caataacatc | ccagcaaaag |
| 240 | ggctacataa | taaagagctg | gttacaaaat | atcattagat | aggcggtgat | aatcacttca |
| 300 | ttcggtagat | actgtggagt | cacaatggaa | agaagccatt | tctgcaccaa | tttttggaac |
| 360 | tgtagaacag | tgaccgtaga | gtccagcatg | acaactcaag | tctctgagtg | ggcactcttt |
| 420 | tcacágccaa | cctggtaaac | caactataat | cctttagcct | gaggagctgt | gggctttcct |

60

120

180

240

300

360

420

530

| tcatttttaa | aaagaagcct | gtagataaga | catcaatcca | ggaatctgaa | gtagttnaga | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| ngcatttaat | cacagnettt | ccttctttcc | agaaatggtn | cagnggantt | ggtttctttt | 540 |
| t | | | | | | 541 |

<210> 5778

<211> 539

<212> DNA

<213> Homo sapiens

<400> 5778

| cactgctttt | cctttattga | taggtcagag | agcatttcct | ggcaccccca | gggtacagcc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ccctgactcc | tgctacccaa | gaaggccatc | ctttcctgaa | tccaagtcat | ctgccatgac | 120 |
| aagagcaata | aaactgtcct | tgggaagagc | ttctgacacc | agtgatggct | gggaggccca | 180 |
| tgtgacgtgg | atgcttggga | tgttgtcatt | gacatccaga | accttgatga | gaactttgca | 240 |
| atgggctggg | ataggattgg | gacccaggtc | ccttgcctga | acatccacct | cgtaggcagg | 300 |
| gttcttttca | tagtctagag | gtcgacgcag | aatgacctgg | cctgtcttgg | catcaatact | 360 |
| gaaggtgtcc | agcacctctg | gaggcatgtg | cttactgagg | aagaactcca | cctcccattg | 420 |
| gggccttggt | caaggtctgt | ggcggcaatt | ttatgagaag | cgtaccaagt | gccanatntt | 480 |
| cttggatttc | aagggccagg | gaactttan | naaacnccng | ggttttggca | atggggcca | 539 |

<210> 5779

⟨211⟩ 493

<212> DNA

<213> Homo sapiens

<400> 5779

ccaagcacat ccacccatgg gggctttatt cagtcacgtc cccacgccca cggntnactc 60 caccaggcan acagaggga ggccacccca ctgcaaaggg tcccagccag ngggcaccaa 120 cctcaggaan acgtggtccc cacctggagc ttccctcggn tgccctggcc cttgagcccg 180

tcctgaggat ttgngctttg actntgacag ggagcagcag gaagctgcca gcccactgcc 240
tccatgcggg tccttggagg gcanacggtg gagcggcgct tcctnagctc ccgcggtcag 300
gccccatcag ggatggccac agtccagcca caggggcgac tntgcccatc agtcccctg 360
gggcagcgac canatcctgg ctggggcagc accggacagg ccctntntat gggcctaagg 420
gcaatgcaag tgggggcttt gttgggccca agncaatgga cccancccta ngaancctta 480
attggcaana agg 493

<210> 5780

<211> 530

<212> DNA

<213> Homo sapiens

<400> 5780

atacttagaa atacttgaaa aatgtggtcc ctttttgtag tactagtctc tacttgggga 60 caagaaaata gaatatgcaa ctcagaaagg aaagagccca aagacgagag aacctgcttg 120 ttagctcatt aacctgttta gtaaagatct gctttaaaat gcctgatgct gtgcagtatc 180 240 atacaaaaca atcttcagcc ttcaaagcag ctgatgcacc ttctcagaga tctgtttgtc tgattaacag tctgctgcct tggtgggcct tggtcttggt cactttcggt catcgatggt 300 tttaatgaat tetaetgetg etgtgaactg catecaceaa taggaeteet etceagaeag 360 acagctagca taaaagctac tgatatactg gacagtagac agcaaacagg gtggatttgc 420 ctttatcaac acaaacccca acacaggacc aaggcattcc ggttcanggg cagaagtcct 480 cattggncag gcttaaggag gtcataatcg nnnagcccat tttnngatgc 530

⟨210⟩ 5781

<211> 541

<212> DNA

<213> Homo sapiens

<400> 5781

atgttccaaa tgtgatgggt ttattttatt ttactatgat gcaaaaccaa agattccact 60 atagcacaga gaccagtata ttacaaggnc atgaaaaaat ggngtgggac atgcaggacg 120 tgatgtacaa actggngggt canatcgtct cctntaacat gacgctacac tgncgctgag 180 gaacacattt aataacactt canaactgaa ctgaaacgtg gcacaaacat gacaacttcc 240 aggeatgeet teaagegtet eectnaggag ggattegeaa eecetanaet teagtgtggg 300 gaggattaca attetttgga agaataaaaa gtteacaett ttgaaattte acagaagaat 360 420 tttaaggcca aaacatagtg ggttcatttc tcttcacttt cagggacaaa tctgagcttt ctnaaaccnc attaagcttt caggtcnaat cccaggccaa ccttgggacn tctngactgg 480 aagtttttcc catcggttta aagctgataa aggcaatttg gctcctagga agaanaaanc 540 541 С

<210> 5782

<211> 529

<212> DNA

<213> Homo sapiens

<400> 5782

attgtgctga tgggttagag aaagaaatat ttaaaaaacct cagtccagac gacacccaca 60 gccgctccaa aagcctcgcg ccctccccc gcccccccc cccaaggttg agtcgccact 120 ttgccgccaa gtttgtgatt gtcacgagtt cacaagtttg gaatcctggg tctgggccgt 180 gcagacgtcg cggcgccgcg ggctagcgtc ggtaggggtg gaacccttgc acgttgtggt 240 300 tetgeceteg tecaaageeg etgeegeegg egaggggee eeeegaeeet ggeaeggagg gacccccgta ggaaggaggc tgctggctgg ggtctgagaa gccctgtccg aagccactca 360 agtoctécoc gtaacoteca tacteacoat aggegaagto tegoteanot tetogegego 420 ttgcttatgt ccggggcacc tgaaacggaa gccgtgggaa agnccnaggg cttgccccgg 480 529 aatggnttgt ngaaggaagg aacccccgga gggcnaaact gntctgncg

<210> 5783

<211> 494

<212> DNA

<213> Homo sapiens

<400> 5783

cagtaaacca ctttaccaat taatctttta ttttttattg catacatcaa tatttaacag 60 aagaaaaata aagaacccct aatgttaaac tgaattacat gttatcttct gattcttttc 120 aatgtagacc taaattttca catgtatcag taaacacaat ttatgttctt attaacattt 180 240 ttgaatetea etttttgea tacaatttga catatateaa tattattgaa tggetatata acattetgng atageactag caatacacca aaatttactt aaccatttee aategttggg 300 360 cttttttccc ccttaaagtt atctgagtgg aactgctaga aaactttgta caaatagctt ttctttcttt taaatatttt cctgggcata tgccactcaa agtgagtatg tcaaaagatc 420 agttataaag ccctttttat agncttctac acaggtctct taaaangntn ctaatcccca 480 494 tgntgntggt ntta

<210> 5784

<211> 485

<212> DNA

<213> Homo sapiens

<400> 5784

cagtgttcta acaagtactt taatggatag ggtttgctgt ctaaaacatg aagaggtaac 60 tcaacattcc tttcagtgcc acaggttaag aacttggaga actggctttc ctgaggagct 120 tctagctcca gaggttgtac atgctcatgg cagcaacaac ccattgacca cttcttcaaa 180 gtagttcact gccaaggaga atcaaaattc aatttggatt cccaatactc agcctacctt 240 caatttccca tcaagcctat attcttagcc tttagtttaa gtgtgggtta tcttaacagc 300 tcacttggcc tcagttcaaa gtgaaatttc ctgagtcctt gaaagaagta gaaacccaat 360 caatgagttt ttctcttgat ctctactttg tgagaaggat acatttctag aaatttcaat 420 480 acctttcaag ngtcagaang gaatntatgg aactggtgga aattgcnang gnnggataat 485 aaggg

<210> 5785

| <211> 512 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| • | | | | | | |
| <400> 5785 | | * | • | | | |
| cttatcaaaa | gtttgtttta | ttttcaatac | aagataaata | ccatgcttgt | tactagtgca | 60 |
| gtttaaggcc | gacaatggcc | atatatcaaa | ctgccgaaca | gtcacctaaa | tgctaaagaa | 120 |
| aggaaagaca | aagtaaacat | taaacacaaa | attgcaatta | caaacatttt | aataaaatgg | 180 |
| aatgagcttt | ttaattgaag | ctaatatgaa | gtctaattct | catggacagc | aaaaaaaaaa | 240 |
| aaaaaaaaaa | agtctattan | atcaattatc | accttacctt | tttgcacana | aatcttattg | 300 |
| ngaagtcacc | atagagtcaa | tagctaaaat | tttaanactt | tctttggcct | tctgatatta | 360 |
| aacaaattat | ttacaaactg | ngatcagtaa | ttcggggata | ttgggtaaaa | tgatcaattt | 420 |
| tttggtggtg | ntggtaaggg | ctttccatta | aaaattggaa | aaccacnttt | gnanggttga | 480 |
| ncaggcttga | aactaacttg | ggtaanatnc | ca | | | 512 |
| | | • | | | | |
| <210> 5786 | | | | | | |
| <211> 542 | | • | | | | |
| <212> DNA | | | | | 29 | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5786 | | | | | | |
| gtttaaccct | agctaaacct | cataactcct | taatgagaaa | gacactaata | atctacaaat | 60 |
| aatattttac | aaatgaaaaa | acccaagcac | taaaaagtta | tgtatcttgc | cctaggtcac | 120 |
| atagcaagtg | aaaggtcaga | atcttaacac | tgctattctg | accacttgta | ataccttctc | 180 |
| taggcttaag | ataataaaca | aattaagcaa | gggatatgtc | tttttatttt | tcccttttt | 240 |
| gtttgtttgt | ttgcttgctt | gctttttctt | tacgtagtat | tgctgtgcta | ggcacatgtt | 300 |
| agtatctcaa | cgaataattt | gtattcagct | ttctattaag | cacagctctc | tacaacctgc | 360 |

| gg | | | · | | | 542 |
|------------|------------|------------|------------|------------|------------|-----|
| actgcgaata | ntggnanggg | ncnaaagcca | gggaaacttt | ggccanaaaa | ggcaggtccc | 540 |
| agataataga | gtcacttgaa | gcatcaaaga | aagattaaaa | tatggtcatc | tgngccctgg | 480 |
| attgttaaac | atttatagtc | aacaacatga | tgttaattat | gacgacctga | agacattgca | 420 |

<210> 5787

<211> 541

<212> DNA

<213≻ Homo sapiens

<400> 5787

| cactgatgac | aatttattat | aatctgttag | tagcacacag | acaaatatta | gttaaaccag | 60 |
|------------|------------|------------|------------|------------|------------|------|
| aaccatgtct | acacagaagt | gggcaatgac | atgtgccatt | ctatggcaca | cggngtgcac | 120 |
| ttaatcatca | tgttttagca | ttttgatctt | ctgcttatgg | cgctcaattt | ctttctgcag | 180 |
| acgctcaatc | tccttcttat | gatgaacgat | ttcttcttca | tggngttttt | tcaaagctgc | 240 |
| cagttgttct | ctactctgng | ctctacaagg | acacggtggc | tcagggttta | atttcaatcc | 300 |
| ttcaccccaa | agagatetea | aagcataacc | tgtaatgtct | aagcaaggaa | taggagttcc | 360 |
| aattccatgg | gagtctagct | ggtcatcctc | ttctactcct | caactagtga | aagaataccc | 420 |
| catcttaaat | tgaggnggag | ccatcttaag | aagaccaaag | agcttattgc | tttcaaatnc | 480 |
| cctttaaaan | ggaaactccg | aaagaatggg | cccaggncct | aatncctntg | aggggaacac | 540 |
| С | | | | | | -541 |

<210> 5788

<211> 475

<212> DNA

<213> Homo sapiens

<400> 5788

gagacagtct cgcactgtca cccaggctgg agtgcagtgg tgtgatctcc gcgcactgca 60

| acctctgc | ct | cccgggttca | agcaattctc | cttcctcagc | ctcccgagta | gaggcaccca | 120 |
|----------|----|------------|------------|------------|------------|------------|-----|
| cgaccaca | СС | cagttaactt | tttgtatttt | tagtagagat | ggggtttcac | tatgttggcc | 180 |
| aggctggt | ct | tgaactcctg | acctcgtgat | ccacccgcct | cggcctctca | aagtgctggg | 240 |
| attacagg | cg | tgagccacca | cacccagcca | ataaggctcc | tctctttacc | taaagattga | 300 |
| ataaccca | ca | caccactgac | aaccttcctt | ctcatacagt | gaggtaggtc | aggaaagagg | 360 |
| aaatatag | gt | accaactagt | aacgaatagg | ggaccttatt | aataggtagt | aaaagcttaa | 420 |
| actagatt | aa | aagaangntc | ttttatatta | aatanccaat | ttnnatttta | aggnn | 475 |

⟨210⟩ 5789

<211> 431

<212> DNA

<213> Homo sapiens

<400> 5789

| gcgtgtcggt | ctgcttttat | tacctcccan | actgagcccc | cgacctggcc | cagcctggcc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| cgtccccaat | ccanngggct | ggccaggcca | cctgcaccag | ggaggacagc | tgctggcagg | 120 |
| gactaataaa | cccttccacc | tggccatggt | ggtggtgttc | tctatggacc | gaggccctga | 180 |
| aacgcgggca | gggaggggca | gagaacacac | tagcttgggg | gtgggcacca | gcctcagacc | 240 |
| cctcagcagc | tttgggccct | cggccgactt | tcccaggcag | tgcaggctag | cccagtccag | 300 |
| gagtgtgcag | cctggcttgg | gtcgagctct | gtcacatctg | gataagcaac | tgggggctga | 360 |
| gagtcccagg | gcagcctggc | ccagcaggtc | aaggcgccac | agggggccat | nangnccagc | 420 |
| tngnncangc | С | | | | | 431 |

<210> 5790

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5790

gagatagagt gtcactgtcg cccaggctgg agtgcagcag atgcgaaact gaaaatacct 60 ctgattggtt gctttgtgca accaatcaga tgttgcatag gagcgtaact ttgtaacttc 120 acttcagcct ctgattggtt gcagaaagca ggccgccact tcatttacac cgggtgaaca 180 ccaagtggcc aatgggaaac ctctaagggg catttggact ctgtagattc tatatcctgg 240 accttgaget getgeteeac ceatteecac actgtggagt gtacttteat ttteaataaa 300 360 tatctgtttt tgctctttca ttgcttcatt ctttccttgc tttgctgtgc attttatcta attetttgtt caaaacacca agaacetgga caacttgcag tcaagaccaa gacegtetac 420 480 tgataacaca ggtcagatac ttcacagcct gctactgagg gatgctgtgg agcttccagg gcccaggatc cttggtggat ccacaacttt tcaaggggnc ctcagcactn tgnganccca 540 557 cgtggcagcc ttcttcn

<210> 5791

<211> 553

<212> DNA

<213> Homo sapiens

<400> 5791

cctgagacag ggtctcactc tgccacccag gctagaatgc agnggcttga tctcggctta 60 ctgcaacctc tgcctctcgg gttcaagcga ttgtcctgcc tcagcctcct gaggagctgg 120 aattacaggt gcatgccacc atgcccagct aaattttgta tttttagtag aggcagggtt 180 240 300 cttcccaaag tgatgagatt acagatgtga gccacggtgc ccagccacag ttctggatca 360 cattttttgt cacaaaaaaa ggtattcata ataataaaat cacctgaaat ttatttggac actttactac ttttacaaag tactcagcag cagttagaca gagctggctt tccttgcctc 420 ctgctcggtg gctgtatcat tccaggcaag tcactttgtc ttgcattgcc tccaatttcc 480 540 tctcatttta aggactagca atttatacat cgantaagtt gaggggattg attagatcnc atacctaacc tnc 553

<210> 5792

| <211> | 556 | |
|-------|--------------|--|
| <212> | DNA | |
| <213> | Homo sapiens | |
| | | |

<400> 5792

cggactcact gccagtcaga aggtctgctc caatgttgtt taatgaattt acacgaaccg 60 caagggaaga tgtttgtagc aagcattttt aattcttggt atcaaagcgt ttttcatgga 120 tgggtagtct ataagatttg caaaggttgg aatgatgttt agacagagct cctggatctg 180 aatggaagga gcttctagtg ctctgtaaac catgggtaga acactgttct ttatctcatc 240 aggaggggtt ttggttagta gcaaatccat tttttgtagg aaaattaaca aaatctggat 300 360 tggctcctgc tgcttaaaca cagggccaag ttcaggaaga attaatttga catattcttc 420 tttggtgcat tcctcagcaa taagtagaac attgggcaaa acaaaaggta ccatgtcagg gtttacaaat tctgaagtca aacaaggcaa aattctctgc acaatgacac gcttgggcag 480 ttttggtaga acctttggca gcctttgaaa aactggggat ttctgaagat tatctctttg 540 556 gaaaaaggga tnnaaa

<210> 5793

<211> 560

<212> DNA

<213> Homo sapiens

<400> 5793

| 60 | acccaatcat | atgtcctttg | ttaaatgtat | tatcaaatag | catcagcatc | gcaggcaatc |
|-----|------------|------------|------------|------------|------------|------------|
| 120 | tctgagaaca | tatgtaaata | cttgtccata | ctcagaaaca | ggtgactacc | ttcccttcct |
| 180 | aaatgtccaa | gaaataacaa | ttataatcca | gttatattat | aggctatatc | agtgtgttta |
| 240 | gcagacatta | atccctccat | tcacagaaaa | tacagtcatt | ctgattattg | ccagagggaa |
| 300 | tagaaccata | aagcaagggt | tttctaaaac | tgcataatga | agttgttctt | aaaagaatgc |
| 360 | taaagcagaa | agcccttctg | gcttttgtaa | gaaaccataa | gggaaatttt | aacaaaagca |
| 420 | cgcacaataa | acatcatggg | tgtggctgga | tggccagtac | ctcatgcctg | taataccaca |

atatgtgttg agtgggtgaa agcacttgca tcttactgtg gcaaacaggc caacaaaatg 480 cagatcatta gcaatggttt ggagaactag agcaaaaaca tacattccat taatttggct 540 ttcattcccc cgaaagggct 560

<210> 5794

<211> 554

<212> DNA

<213> Homo sapiens

<400> 5794

gcttttagct ttttattttt gtattaacag gagtcttatt acacataggt ctgataaaac 60 tggtttatga tcttcagtct gtttccagtg ctgcataact agataacgta tgaaggaaaa 120 acgacgacga acaaaaaatt aattgcttgg aagacttagt tgaatctatc catgaaaaca 180 240 gaatcaatta aacatgtatg tgttacttag actaaatata aataacccat ataaatggta gctcaaacat ctcaagtgtt tcagagaatg ttagaatcta ttgtttgaag tgtctattgt 300 actitatgia agticigitt ccaaacatta gtattagtig gigatattic cccttcatag 360 ggaaggtaaa aaaggtttgt agaggtggca aacaatattt ggtttaaact agcaggagac 420 aaaggaatte caagaaagge aaaaateett teagtaagtt ttetgaggaa aatgeacaat 480 atcttcaaac ttgccagctg gtagctagta ggcagcaaat ctggatttat tctcaaggct 540 554 gctgctggat ttgc

<210> 5795

<211> 553

<212> DNA

<213> Homo sapiens

<400> 5795

ccttgagaca gattattgct ctgtcgccca ggctggagtg cagtggtgtg atctcagctc 60 actgcaacct caacttcctg ggttcaagta attcttatgc ctcagcctcg cgagtagtag 120

· 特平11-248036

ctgggattac aggcaagcac caccacgcct ggctaatttt tgtatttttg tagagatggg 180 gtttcaccat gttgcccagg ttggtcttga actcctgacc tcaagtgacc cacccgcctt 240 gacctctcaa agtgctggga ttacaggcat gagccaccat gcccggcttt tacatgattg 300 tattttaata tacagtgggt aaaagtttgt gctaaaatgt atcatttatg gctccaattt 360 ggtattattg aagggagatg tcccttcaat atgggagatg ttccctttta ctcctgactg 420 attigting tiggggcctt ataatgicat agaaaatgig cattitgagi ggttaaaaaa 480 aaaaacagcc tatagttttt actctcaaag acttgggtta atataaggaa cngtantata 540 553 cccgggttaa aac

<210> 5796

<211> 560

<212> DNA

<213> Homo sapiens

<400> 5796

ggaaaagatg agaaacgagg ctttatttgc tccaacagat attaaaagta tgagaaccac 60 aaccatgaaa acaacagaag ctgatgtgag aaacaacact aaaattaaac agtgcagaca 120 caggiccage gacaatgatt ttagcactca tacaggigge atticggica gigcatgatg 180 attcagtggg cgaagcattt cagatccttg tctcatatca cacctcgaaa tacattcctg 240 gtcaattaaa cactgaaacg tactcagaga aaaagagatg aaagtgtaaa caatctttgt 300 gtgagaaagg actttccaag catgacctca aaggctagag cataagagtc ttcgttttaa 360 aatgtgcagg catttctgat ttaaaaatgt aaactatagc aggttacatc aaaaaggaaa 420 aaaatacagt taaatggcaa atgatgcatg aggaataatg atttacagtg aatatgttac 480 aggtttgctg ngcttaatat gtaccaatat cttacaagcc aaccaaatat tttcaaaact 540 aaatgccttc ttagataaga 560

<210> 5797

<211> 550

<212> DNA

<213> Homo sapiens

<400> 5797

gtagagacac agtctcgcta tgttgcccag gctggtcatg aactccggcc ttaaagctct 60 cacctcggtc tcccaaagca ttgggattac aggtgtaagc cactgtgccc agctaggaca 120 aaacttttga ctttgtcaag ccttaatttc ctcttctata aaatggagtt aagaagggct 180 240 ccttcctcac agattgtact gagtatttca tgagatgata tgtgtatgtc aggctgtgtc 300 tetecaggga tggetgeate aatattttge tactatteae atactetttt tacagtatga 360 tggacattcc tctcactgac agatggggca caggtcaatt ccccttgaat ctagggacct 420 tgtgactatt tgaccagtag aatgtgcagg aagtgatgcc atgtgacttt tgagactagg tcatctaaac gatacagctg ccacctgact ctcactctct atactcgcct tggaatccag 480 teaceatgtt gtgaggaage teaatetaae egaacagatg tgggaacage ceacatggan 540 550 aggaactgag

<210> 5798

<211> 498

<212> DNA

<213> Homo sapiens

<400> 5798

agatggagtc tcactcttgt tgcccaggct ggagtgcagt ggcatgatct cgactcactg 60 caacctccgg ctcccgggtt caagcgattc tcctgcctca gcctcctgag tagctgggat 120 tacaggtgca tgccaccatg cccagctaat tttttgtatt tttagtagag acggggtttc 180 accatgttgg tcaggctggt cttgaactcc tgacctcgtc atccacctgc ctcggcctcc 240 caaagtgctg ggattacagg cgtgagccac cgcgcccagc tcagggcttt tattttgtca 300 cgttgaaaaa acaatgagtt ggtaggagaa gcctcggatc caaggacaaa gacaatatca 360 420 ccaaatagct ccaaaattac aatgaggatc agaagcctgg aaggatgggg tggaggtgag 480 tggggatcan aatggaaaca tettteetet etetagegge eagttiggng anggeaaggg 498 actngngcca tnctncct

<210> 5799
<211> 328
<212> DNA
<213> Homo sapiens

<400> 5799

gcacttataa tgcttttatt aancaggaac tctctggtgt tgagtaaaat gtgagcagat 60
aatgatggct ttttcacagn ctttatattg gnataattaa tctcaagtat aaangctttc 120
ctagcaataa agggngagca ttaagttttg ccatatngtt cacacatgta ggcgttttct 180
ccagtatgaa ttatcttacc tacaangaag ngngacaacc atttaaaggc tttatctcac 240
tcttcanatt tctaggattt ctcaccagta taattacttt natggttaga aaagttngag 300
gcgttgncaa aagtagncac atctttct 328

<210> 5800

<211> 563

<212> DNA

<213> Homo sapiens

<400> 5800

agacttttga ctttattcag aaagtacatt tatacatttg ttccaaatgt gctaacatgg 60 ataatttgcg taacagaaaa ctcacattaa aattttaagg aaaaaaagag attaaacaca 120 aggtttattc ttaagtccaa ttcatattat tactggccca catgtagtca gagttcagcg 180 taattgaacc agatgttttt cctctttgca aaaaactgca tattttaata ctgaagttaa 240 agataaaaaa ctatgtttat gcatgtttct tttagtagat aagtaccata accttgtcca 300 tgaaaaagaa aattatcatt tacatggaaa cagcagccct tttcaaaata attaatgagc 360 ctaatttatt tggcaaccca agttgctgac tttggtattt gatgctctga taataggatc 420 480 ctacaaggga atatgttttt accaattata tgtgaaacaa caggaaccta tttaaatgnc tcattttcct tttaaatgca aagtttataa ctgnggatgt gaaatcaaat taaaggcagt 540

| tgtganctta | agttatcccc | ccn | | • | | 563 |
|------------|------------|------------|------------|-------------|------------|-----|
| <210> 5801 | | | | | | |
| <211> 554 | | | | | | |
| | | | | | | |
| <212> DNA | | | | • | | |
| <213> Homo | sapiens | | | | | |
| | | • | | | • | |
| <400> 5801 | | | | • | • | • |
| gaaaactgca | tggcatcatc | ataattacta | cttatctgac | cttgtttgcc | acttgtactt | 60 |
| tggagaagac | caatggtctc | cacactatta | tttgatacta | tgccaagtga | gccacttggt | 120 |
| tttccagaca | aggatttctg | tcctactatg | tctggtaatg | gtgacacaaa | gttaaggtag | 180 |
| tttttatctg | tattctttct | gcttcctttc | ttaaagatca | attttggcac | cctcttctgc | 240 |
| agttcatcta | ttccagtgcc | aattatgcct | ccactggaag | acacggtagg | catttctact | 300 |
| gagtaactct | gcatgtttat | attatttgaa | atttgcgatt | catttgtttt | accggtcttc | 360 |
| tgttccttat | tttcaatagc | tatgcttttt | gactttgntt | ttctccttga | agaacttgga | 420 |
| tttccctgag | acaacacagc | cnggattacc | tatattggna | tgnttgatga | cccaggttct | 480 |
| gcctagngct | cctttaacta | ngacttcacc | aaatgttccg | cctgggcttc | aacaatctat | 540 |
| cagccttgna | aaan | | | | | 554 |
| | | | , | • | | |
| <210> 5802 | | ÷ | | | | |
| <211> 548 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5802 | | | | | | |
| | | | attaagaata | anant mattt | tacaagatca | 60 |
| | | caaaaatttt | | | | |
| | | aatattcctt | | • | | 120 |
| | | aattattcaa | | | | 180 |
| caataaataa | gacggcacat | tcatatattg | tttataaaga | tcttttttt | tacaaagcta | 240 |

cagctatgta tatcctaaat agacaaaaat aatccttgta ctacaaaata acatttcatt 300
ttcctcaata gttttcttag agctctcagt aaaaactttc agacatagtc aattaagccc 360
tgcacaatag ggaaacattc aatctgctca atagaccaga ctcccccaaa ataaaacaat 420
gatcaccacc cactacaata tggtctgaac aatctcctnt ccaagtttag ttaagtctgt 480
cctgaggatg tacagtaggg gaacgaccat ttttccgngt tcacaatttg gctttggcgg 540
anagaatn 548

<210> 5803

<211> 566

<212> DNA

<213> Homo sapiens

<400> 5803

gtctatccag ggggccttta atagctgaga agtgctgctc tttcagatgg gggtgccaag 60 caggccggtg accccaacct ccacccctg ccctgagaa gagactgggc tgggccagag 120 180 accaatccac gggggaaagg ccaccagcac ccatcaggct tcccactggc accctgaaaa cctgcccagg ctgggccgcc agcgtcgtcc acaggccttg gccagcgggg gccctcaggg 240 aagcaaccca gctcgcatct ggaaggccag gcagtcccct cgggtggctt gctgcggaag 300 aaagcacaca ggaggaggg tacatcacaa acagagctgg gggcggatgg caggcagagg 360 420 ggccacaccc accttgttga tctctctgtg tcgttctttg gttacgattt cctctaggac ctcgccatct cccttaataa gcctggtgcg ccccgtctca gggtccacca ccttgcggat 480 gatgctctgc cgggcattcc actcctnctt gggcatgggc ttcatgggct ggattcggga 540 cttntgntca tncgnctgga ctgggc 566

<210> 5804

<211> 563

<212> DNA

<213> Homo sapiens

<400> 5804

gagacgaagt gtcgctcttg ttgcccaggc tagagtgcaa tggcacgatc tcagctcacc 60 gcaacctccg cctcccaggt tcaagcaatt ctcctgcctc agcctcccaa gtagctggga 120 ttacaggcat gtgccaccat gcccgactaa ttttttatat tttttagtag agacagggtt 180 tctccatgtt ggtcagactg gtctcaaact cccgatctca ggtgatccac acgcctcggc 240 ctcccaaagt gctgggatta caggcatgag ccactgcacc cggccgtcaa tttgcctttc 300 360 tttatggtgc tgggtgggac taagtcacag cagagtcacc taacagcctg gatgcacagg actgaggaag gtaagtcaaa gagtgcaggg cctttctcta ccttctcagc aacaaagaga 420 agagacacat tettetetea gagteetget gngettetge taatacatge ageettgggg 480 540 acttategae ageaeaaage cageatttet nettteteag agaaacatta aggnaeetgg actggcgata gggttnctgg atn 563

<210> 5805

<211> 446

<212> DNA

<213> Homo sapiens

<400> 5805

cccagaatga attctcgtgt ttacttccag atttaatgac tttgacttta gtagtcatct 60 gaactattta ttttactttg ccagtaatat ttagacctta tatatctttc attatgccat 120 cttatcttct aatgtcaagt gaacagttgc taaactgtct tctgcattta tcacattaaa 180 aatgtettte ttggaaaate ttettgatat gaataaagta tettttagag eeateattta 240 aagcaggttt ctctccaaca cgagtctgct gaggtggtgt gagctgtgaa ctctggctga 300 360 aggettteee atacacactg caatgacatg gtttetgace agtgtgagtt acctgatgtt gaataagggt tgactttcca ctgaaggcgt ttccacattc ttgacattna tagggctttn 420 446 cccnagnatg cattatenga nettna

<210> 5806

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5806

| catttataaa | agggtattta | tttcttattc | atgtcaagtc | caataagaat | tctactgccc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tactttttgt | aatttacaac | catctgtaat | acctagtttc | caagaacaat | gcaacagaaa | 120 |
| cagaagtgaa | ggaggagggc | acaacagctt | ttaaccatct | cagtctggaa | gtggttccaa | 180 |
| aaatgtctct | tccttttaca | atctattgtc | cagtagtcac | atgggctcaa | tctaattgca | 240 |
| aagagaagcc | ccaaaatata | agaggacatg | tggatatttg | gagaacttaa | attgtctctg | 300 |
| tcacagaaaa | aaaggaggtt | ccaaatagag | aacaacagaa | tgaaaacaac | ttaggggcat | 360 |
| gggctggaaa | agcttcccca | aagcagtgac | atttacgcta | agatctaaag | ggagaaagaa | 420 |
| ctcagccctt | gnatgtttga | aaggtaacca | atatagtgaa | gaggtaagag | gctaacacat | 480 |
| tattcaaggt | ataaaatatg | cattcctaac | gnggcctgna | taccatagat | nctatttagc | 540 |
| ttngnaaacn | tttatgggng | c | | | | 561 |

<210> 5807 ⋅

<211> 559

<212> DNA

<213≯ Homo sapiens

<400> 5807

| С | ttcctggag | tcgcttttgt | ttttcttctt | cctcctttct | aagattttct | ttccataagt | 60 |
|---|-----------|------------|------------|------------|------------|------------|-----|
| t | ttcttttcc | ttgctttgct | ttccttgcag | cctcatcttc | tagtttcttt | ttctgcatta | 120 |
| g | ttctaatcc | tttcctttca | atttccttca | acttgtcacg | tttgatctta | taaagctgtt | 180 |
| С | aagggctaa | ctgctgtgtg | ttgtaggttt | ctctcagttc | ctttagttga | ttgttaaaag | 240 |
| a | atccatttc | tgacagctta | gatgcagttt | ctttttcaag | agcatctaac | tgttctttaa | 300 |
| g | tctttggca | taattcttcc | ttttctaatg | attttttatg | aagtaaactg | acccctgaat | 360 |
| С | aggtgtgtt | actgaactgc | atgtttttaa | ttctttcatt | taataattgc | ttctcaggta | 420 |
| С | cagatagat | aagcttattc | tgatattcct | gaagttcctg | gtgaagtgct | tgattccata | 480 |

| anttccaagt | cacactgntt | atccagaact | ttcagctcag | ctttggagtt | gctttttgag | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| ccggacatcc | ggaagctgg | | | | | 559 |
| | | · . | | | | |
| <210> 5808 | | | | • | | |
| ⟨211⟩ 533 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | · . | | , | | , |
| | - | | | | | |
| <400> 5808 | | | | | | |
| gccaaactac | cttgttttat | tggattttga | gtaaaaacat | gaaccatgtc | aaagtttcca | 60 |
| ggcagactcc | taaaaagcat | tagcagatct | ggacccaggc | aggccaggga | cagggaggtc | 120 |
| cctctatcag | gttttgaggc | gggttgagcg | ccgaggtagt | gggggctggg | agggtcgagc | 180 |
| cgtcaccttg | ctgggtgttt | tgtcctgggt | gttgggctgg | gagggtgggc | ggccgctgga | 240 |
| ggtgaacagg | gctgtcaaag | cgttccgggc | gttgattgcg | caccggcggc | tcacaggtcg | 300 |
| ggtggtgggg | ctggggttct | tggccgcctt | gtatttctgc | aggttctcaa | agtggcccag | 360 |
| ggacttgcag | tgggagagct | gtgcccctga | gttgctgtga | tagaacttgt | gggcaaatgc | 420 |
| ggctgtgaat | gtcctggggc | tgcacctgtg | gctggacctg | tttaacggct | ctngcttcct | 480 |
| gctgcaactt | nacctgnctt | gggcccctng | gaatggnccc | nggggctgnc | ctt | 533 |
| e . | | | | | | |
| <210> 5809 | | 00 | | | | |
| <211> 563 | | · | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | • | | |
| <400> 5809 | | | | | | |
| aggcaaaact | attttcattt | tactatgatt | ggcaaattat | gatgtatttg | attgataaat | 60 |
| ctcagattta | tcagattgat | tctagttcgt | cttcatgtgg | cagaatatgt | gttgtcagga | 120 |
| gtgatttggt | aattcagaaa | agcagctgaa | gaagcatgga | aacttcccta | caagtatatg | 180 |
| | | | | | | |

gccacagctg gctaaggttg gagacagtat tctatccttg ggcctcagac tcacatatgt 240.

| atgtacatac | acatattatt | cacccatatt | tccttccttc | tccctcccc | catctgtaaa | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| ctgatatcta | aactttacaa | attacagtta | caagaaaagt | tttgttccat | ttgaaataca | 360 |
| aaaaagatca | ggagaagcaa | tctgcttttt | aattttactt | atgcaggtaa | gttttttaag | 420 |
| gatacagtca | atttggtttg | gcactttgga | actaagaggg | gatcnggtca | taaaaaaatc | 480 |
| taccaactct | nagcgaaact | gaaatgaggt | ngacngaaag | ggntcccatn | cataaagggt | 540 |
| ttaaaaatta | ccaagnccaa | ttt | | | | 563 |
| | | | | | | |

<210> 5810

⟨211⟩ 318

<212> DNA

<213> Homo sapiens

<400> 5810

| caatcatgac | atctttatta | taccatagat | gaatattngt | taaataaaaa | taggtacagc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| angngtncaa | taagaccagt | agttctcctt | cagaactcta | cccatttttc | agaggaagga | 120 |
| aacacttttc | cagaatacaa | ngctcaagaa | atgtaagcca | gatcccgctt | gtatgaggta | 180 |
| tcttaagtag | tcagactctc | aaaancagaa | ngcagaataa | nggngccaag | agctggggca | 240 |
| ggcaggggga | aggggaaaag | aggagttgtt | cggtgggtat | agaacttcng | aattcangat | 300 |
| ganaaagttc | cggnggnc | | | | | 318 |

<210> 5811

⟨211⟩ 571

<212> DNA

<213> Homo sapiens

<400> 5811

cattgaaggg ttttactgct aatcactctg gggaaaacag aggcaggttg ggggagggat 60 aacaagtaac aaacatgggg gagtgtgaag gtccctgggt catggctccc tgagggtttc 120 cctttcattt ctaaggnggg acctcagatc tcttctccag accaaggagg ccccttccat 180

| tgagaaggtc | actcctccca | ccccagagat | ctagaagcaa | agttggggca | caacaggtgg | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| gaactagcag | gaaactgcag | tgcactccta | cctaagcagt | tcacagacaa | tttggagaac | 300 |
| cttcagacag | tgacacccat | cțcataagta | cttcctcaaa | ggccaggggg | actgctgcct | 360 |
| taataacatg | agcatgttct | gagcctaccc | tatttctctt | tcaccccaag | aaagtaaagc | 420 |
| caagactggg | tcttctgact | ttccaacacg | agaaatttgg | cctggaaaga | aggcaagggg | 480 |
| ttttatttca | gangtccttc | ctcaggactt | tctngagaan | ctgactttan | aggctnttcc | 540 |
| aaaacccntt | ttcaaagngg | ggatggaagg | g | | | 571 |

⟨210⟩ 5812

⟨211⟩ 553

<212> DNA

<213> Homo sapiens

<400> 5812

gcaattcana aatgttttaa tgtatttaga agcataaata ccaaacctgt gctccaaagt 60 taacaagtat gtctctaaac tctagatctg atttttacag ccacacttga gacaatgacg 120 taaacttaaa ctttactttt aatggcttaa actagcacta aaatgtttaa tgtctcactt 180 aggagattic aaataaagtt titacatcgc tcatgtttac taactcgaca atctgagctg 240 tcctgttttc ccaggtgtta aatatcattt aactgggaaa tgaaagcaat aaaaaaattc 300 tcaaacatga actaccatta ctttcctata aacatcttaa cattatagaa aatttccaat 360 tatgtcaaaa tcagaaggtg aaacccttag ctttccatgt tacacctgac ttagtactac 420 tcaagtatgg gaaaaaggtc ctggagaata atggttccaa tacttttcat tggcatctta 480 attggcatca tgtagaagtg gaaaantgta gaggataaga gcncaaggct tgnaattctc 540 553 cggacnnatg gng

⟨210⟩ 5813

⟨211⟩ 563

<212> DNA

<213> Homo sapiens

<400> 5813

gtagagatga ggtcttgctg tattgcccag gctgctcttg agctcctggc ttcaagccat 60 cctcctgtct tggtttccca aagtgctggg actataggtg tgactcacca tgcctggcct 120 acatccagtt taatttatac tacactgtgg gtttagtcct caaacatgtt tttgttttac 180 atataaaaat ttgaggtaaa agaacatttt tacattggtc aataatggta catttaaaca 240 300 atggacgact atatccatta aaatcgtgtt gtggaagaat attcagtgac atggaaagac 360 tgactcaagg gcaagtgaaa cgtgtcaaga gtctgttagg tactagacac tgtaaactgg gtottggotg tgttacttgc ttacatcotc catcatgtga tottttagat aacaaaatcg 420 agatcatagg gataatgggg tgggctgatt gaaagaacag aacttgggcc acacttctag 480 atgcctgnga cttttctgca tctattcaga tattaaggaa ttgnttatgn aaaccatggg 540 ggttgaatgc taaaggaccc tcc 563

<210> 5814

<211> 555

<212> DNA

<213> Homo sapiens

<400> 5814

gagacagagt cttgctctct gtcctgggct ggagtgcagt ggtgcagtct gctcactgca 60 accteegeet eeegaagatt caageaatte ttgggeetea gteteetgaa tagetgaagt 120 tacaggtgtg cgccaccatg tctggcaaat ttttgtattt ttagtacaga tggggttttg 180 ccatgttggc caggcaggtc ttgaactcct ggccttgtga tctgcctgcc tcggcctacc 240 aaagtgttgg gattataggc ttgagccact gcgccaggcc aatcttaaca ttttaattgt 300 tgttttgatt ctcttggttg tattacacta aaaacgtatt tatgtgtaaa aatttaaaag 360 cagcctgcat aactcaccca actatttgat aaatatcttc agattttcct tggtgtaacc 420 480 tcagtatcca agcacctggg tttgctttta attgaaaata ccccttttaa gatgagaaaa 540 aaataatcat tgggtaatat gactaaaaan ccattgaaat gntcatgaat acccgagggg 555 actaangaaa ggttt

<210> 5815 <211> 577 <212> DNA <213> Homo sapiens

<400> 5815

ctttttttca agtctggcaa aagcttgcaa aattgcttcc atttttcttt cttctcttgt 60 catctteett tteetttetg caatetgete etetgattee atttetaett cattactaat. 120 180 aggagttttt tettetatat cateaataaa atetggttee tgattatttg ataetgatag tctcagtgga gaaagctttc tttgtttagt ttctgggctc ttcattttgt tggtcgctcc 240 300 ttcacaatcc aaagtaatat tctgattttg tgtatctttt tcttttgaaa tatcttcgtc tttttttcct tttttccgtc tggtctcata accactattg atattttcca tggattcaga 360 actacgtttt agaacagggc actctgggtt ttctttgagg catgcacagt ccaccttgta 420 cttacaattt ccatagtcaa aaatcaaagg caaataagta atttcaattt ccctttggaa 480 atactggngt atngaataaa atataaagga tgtnatgggg nccatcttgg aaattcatgc 540 ctcacctctg gcattgggng tccaaaaacc gcctgag 577

<210> 5816

<211> 538

<212> DNA

<213> Homo sapiens

<400> 5816

gagacggagt titgctgttc cccaggctgg agtgcagtgg tgctatctcg gctcactgca 60 agctccgccc cccgggttc acgccattct cctgcctcag cctcccaagt agctgagact 120 acaggtgcct gccaccttgc ccggctaatt tittgtattt tagtagagac gaggtttcac 180 catgttagcc aggatggtct caatctcctg acctcgtgat ccacccgcct tggcctccca 240 aagtgctggg attacagatg tgagccacca cgcccggtcg gcagttcttt atagcagcat 300

gagaatggac taatatagta cattgagtgg agtgctgcta taaagagacc caaaaatgta 360 gaagcaactt tggaactggg taacaagcag aggttgaaag tttggagggc tcagaagaag 420 acaggaaggt gtgggaaagg tttggaactt tctaagagac ttggtgaaan gggtttggcc 480 caaaatgcta ataggggatn tggccaatga aannccaggc tgnatttggt tttcanan 538

<210> 5817

<211> 561

· <212> DNA

<213> Homo sapiens

<400> 5817

cctttcaaac actgtggctt acttgtttac tcaactaaga aagaaaaagc aaccttatta 60 tagagattag caagagatga agaaaattat agggaggctg ccctggccca aaggtctgct 120 aatggcttct gcagggagga tgaggatggt gctaggttaa ctgcttgtct ccactacaga 180 240 ccagagaacg tccatgcgat gcctcttatc agtgaggtag atgatcatcc tcttgccaga 300 ggtatcgagt gccagcccac agcacagcag agcaaaaaag tttaaagtag gtcaagttca 360 aaattatatc aaggagataa gagatgggag gcaaaggctc cagaagagga acagaggcgg 420 aaggaagaga agctccaagg tgacgcccac tctaggacaa gatgatgggg agcttgcttc 480 tgtcctgtca gacatacctc ctgccaccac gagcagctga atgaggggtg ggaanggaag 540 aaaagcceng agtgaatttt tggaagaaga agtggaagge caggaatece ttannteetg 561 ggaacctttt gggggtttng g

<210> 5818

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5818

acatagaata caattcaaca ttacattgat teetttagge ttegggttag atcaaattet 60

cccaaacaga atagccatgg ggagcatgag acaatctagt gagcctaaaa cacggaagct 120 ggttctgtcc tttgacccac tgacgtgaaa agagtcattg caggtgatgc tttgttgcag 180 aaatgtggag tctgacctgg gctgcatttc cagatcaggt gcatccgtac ctcagccttc 240 catggggtaa caggcattgg caaaaaatgt cctgcctcag tgtgaccctg gaacctttcc 300 agcccacact catgtggagg atcccagtgg ggatgacgat gtttggggat atttcctcat 360 420 attetetttg etgagaaact agettgagtg ggeagggaat ggaggeaggt aetgetagag tctgcaaagt gagtccagaa cctggacttc tagagttggg gggtatncct aaacttcctt 480 tcactaagac attcatgata gccagtattc caaaggggnc cttcttataa nactnggccc 540 564 aggetteaan ttetggggan gagg

⟨210⟩ 5819

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5819

aaaagttaga actaatttat ttaatcacag atatttagta tactcaataa tgcactaaca 60 atttetttaa aaaaacaeta ataetgtaca gtatttetgt gttttagttt tteecacage 120 tgttgaaaat ttcagccttg atttgaaaca tgacctgcat gacaggctat aagttgtcaa 180 tagttetttt tetttggaaa agtaeagttg tggeatttae teaetttage agatagetaa 240 aagggaaaaa taaggaaaaa tatacactgg acctgcagtt aagtttttga caatgccaag 300 gatcaaaaac agatgaaaca acatttgctg aagatgaaaa ggtattgcat tggtcttaat 360 agatgttgcc atctctgggt gaggatgctg actgagcctg ttctgtgtct tcatcacctc 420 tatttgnttc ttcttctacg acagaccttc aagagacaag atccatgtag taagccacac 480 taagneettt tgeeettett aatentetgg aggetettne etggggaent ttgneeaaaa 540 tacttaggtt accaatnttt anct 564

<210> 5820

<211> 325

<212> DNA

<213≻ Homo sapiens

<400> 5820

| acncggggag | agatttaatt | tacatagcag | ccacttgggg | nccagtcana | gctggggcag | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ngggggaatn | tataacccca | gagggtnccc | cccanacccc | caccccggg | agaccagtcc | 120 |
| tcaccaaccc | ttggatgggc | tcccaaggtt | gngcaaaana | tgctccagtc | aaaaggatag | 180 |
| agacatttgg | gaataaggct | gnccccaagt | tgggggaagt | ccacggcctg | gagnggnggc | 240 |
| ctacatgggg | gcccaggggt | ctgananacc | agtccatgtc | ctgggcgagt | cctcagcctg | 300 |
| ggggccctan | aggaagcctt | ngngg | | · | | 325 |

<210> 5821

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5821

| aaaacataat | acatttttat | ttctttaaaa | acgtatgaca | aaatttcttc | tgccatcggc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| catgctcaga | tttatacatt | ataaaatgat | ttaattccct | aaagtacaaa | aaagaatggc | 120 |
| tgaatctcca | aagagttgat | aaagactgaa | gatgtttata | aggcatgctt | atgtatacta | 180 |
| tttcaagcca | tctacaggac | ttgagacagg | aatgtttagt | gtttgcaaag | ccacagtcac | 240 |
| tgagccagac | tttgtggtga | tccagagatc | ctttcatttc | acagaactgt | ccttgacggc | 300 |
| ttctcccaat | aaagatttac | aaccttatct | cttggctgtg | gcagtatgag | agggtcttct | 360 |
| ttcagtacat | atactaaagc | ttcattggag | tagccacgct | taggaagtac | caagtaaatg | 420 |
| acaacataag | gccaaatgca | ggcagcaggt | atttttcaat | aatgaattac | aggggcttca | 480 |
| agaattcnac | angagaaagn | gattttcaca | gngcttgaaa | agcttganaa | tgggattatt | 540 |
| gccaaannga | aaagggt | | | | | 557 |

<210> 5822

<211> 557
<212> DNA
<213> Homo sapiens

<400> 5822

gatgcaacat tgcttttatt gggggttagg aacatatgac aaagtcacat aaaatgtcaa 60 caaagtcaca ctttgtgctt ggctgctctt taaaaaaaaa aaaaaccctg tttatttatg 120 aactcactca atgagaacta tgtgagatgt ggccaacaat tatcatgctt aaaacaggac 180 240 ggccagagcc atgaggagat tgaagtctga caatgctagc tagctaagtg gaaatttacc attgtcaaat atcagatact tccacacatt tagatgtttg tccataagta gacccagctt 300 360 agctgactcc tttgagaaag aattgngtct caaacccctg ttattcagct ggccatatta 420 ttaatcatta ctaaatgcca gccacatgca aaggggatgg aaaagaagaa tgagatttgc tcagttttag ctttctgngg ctgaagtatt tttgagtcag ttacatggat acatgaggat 480 tatagtaggg aaatgactgg atatttttaa aaacctaagt nctatgggaa caggcntggn 540 ttaaccattn ggncnna 557

⟨210⟩ 5823

<211> 536

<212> DNA

<213> Homo sapiens

<400> 5823

gttaaaaaac atgtttattt tacaatatgt acaatcagga acatatttta aaaccattat 60 cattaaaata aatgaagatc ataaatcaca atttagtttg ttcttagtgt atatactcac 120 attaaaatat aaagaacata taccaaaaag agccaaaagt gtgcattttg ctaaaacctg 180 gtatatacat attccattgg aaaaaagcaa tcaaaaatga cttaaaaccaa aactaagttc 240 ctgtgatgtg tagtaaccat tatattgttt gtatgaggta gtaactaaat tattttggcc 300 atgtattaat actctaagtc aaaagaaata tgaaaaggat cataaaataa ggccaacaaa 360 agtaaaaatt ccaagagaaa tttgaaccac ttcactctat gggaatggta cagttcttca 420

| gtgngatcat | atgaaatggt | tagtgaggac | tctttaataa | tgctaattaa | ttctttgggc | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| aactgggaat | tcntggnccc | caattggcng | gatttctatc | atgggacccg | ttttnn | 536 |
| | | | • | | · . | |
| <210> 5824 | | | | | | |
| <211> 507 | • | | | | | |
| <212> DNA | | • | | | | |
| <213> Homo | sapiens | | | | | |
| | | | • | • | • | |
| <400> 5824 | | | | | | |
| gtagagacag | ggtctcaaac | ccctgggttc | aagtgatcct | cctgcctcag | cctcccaatg | 60 |
| tgctgagatt | ataggcgtga | gccaccgtgc | ctggcctgca | aactttataa | acagaattct | 120 |
| ggctaaagcc | tccagtataa | atgggcaaag | tagatgtctt | aatttatttt | atgctgctat | 180 |
| aacagaatat | ctgagactcg | gtaatttatg | aagaaaataa | acgtatttct | tatagttctg | 240 |
| gctgagaagt | acaagaccat | gaggtctgca | tctgataagg | gacttcattt | tacatcatcc | 300 |
| caggtcagag | ggcagaagag | caagagacgg | tgcacactcc | tttataacta | acccactccc | 360 |
| aaataaagac | agtaatccat | tcacaggggc | agacccgtca | tgacccgaat | cacctaatag | 420 |
| gccccaactt | ccgacactat | tgcaccangg | attaaggttt | ctnacaccca | actttggaga | 480 |
| accentttca | accncattan | ngggncg | | | | 507 |
| | | | | | | |
| <210> 5825 | • | • | | | | |
| <211> 529 | | | | | | |
| <212> DNA | • . | | | | | |
| <213> Homo | sapiens | | | | | |
| | • | | | | | |
| <400> 5825 | | | | | • | |
| gagatgaagt | ttccctctgt | caccaggctg | gagtgcagtg | gtgcgatctc | ggcttactgc | 60 |
| | | | | | | |

aacctctgcc tccctggttc aagcgactct cctgcctcag cctcccgagt agctgggact 120

acagatgtgt gccaccacgc ccagctaatt tttgtagttt tagtagagac ggggtttcgc 180

catgttggct aggatggtct caatcttttg acctcgtgat ccacccgcct cggcctccca

| aagtgctggc | attacaagcg | tgagccactg | tgcccagcca | gctctttata | gtttaagagg | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| aaggataaac | cttaagagat | cacaacacta | tatttgtgtc | agggatccac | aagactgcct | 360 |
| ccatgtttgg | agatttgcta | gaaggactca | tgggatcagc | ttagggttgt | aatgggctaa | 420 |
| gatttattac | tgnaacatag | natggatata | tagnagaaag | atctcaatgg | caaaagacac | 480 |
| tgnccgagtc | tggaaaaatt | cctggacccg | gtttcttatg | nggcngggc | | 529 |

⟨210⟩ 5826

<211> 530

<212> DNA

<213> Homo sapiens

<400> 5826

| aaccctgtgg | cacttaccac | ctatcctact | atatatttaa | tatgcttatt | tcctactgac | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tgcctgtctc | cccttatcaa | ggccaaggtc | ctcaaggtca | gggatttgga | tctcatttgt | 120 |
| tcactgatgt | atccaaagtg | cctagaaagg | tgcctgatac | atagcaggcc | tcagtacgtc | 180 |
| tttgtaaagt | atcggaatga | atgtatcatc | aatcaaaaca | taatagtttc | catttattgg | 240 |
| atgtcgtcta | tgtgccaggg | cactgcgatg | aaaattttac | aggcctgatc | ttactattcc | 300 |
| tcacaaaaat | ctcccaagaa | aagagccttt | attatgacta | tcttatgaaa | aaagacactg | 360 |
| tagtcctgca | gggccaatta | agatgaccaa | gaccacccag | gtacagagtg | ggagaactga | 420 |
| gcctcagact | agttctgctc | aatgggaaca | tgaccagatc | ctgctggaag | aaccnagggt | 480 |
| cgcttctggc | aaataacgcc | gcaacccttt | tgngtnattc | ncttttccnn | | 530 |

<210> 5827

<211> 524

<212> DNA

<213> Homo sapiens

<400> 5827

ggctattgta tactaacatg atagaatgtt ttgatgaaaa acaggaccca gtagaattaa 60

gcaaagaaga aaaatgtact gaaattttta caaatcagta ttaaaatatt ttggtagttt 120 gtttcaatac ttaatcttta aatctttcta attgtgttfa tccacacaga tcagatttat 180 cacagatett tatttttee attatattag attttgette tgttgaataa aataaaetta 240 tgatgaaaag tottataaaa aaacatgtot tttgttacot ttgcaaaatc aagactooga 300 atccagtcta atctgtctcc tcccaagcaa aaaatcttgg ggaaaaagct gaaatgctat 360 tacctgaaaa tttatgtaag attgtacatt tactttccaa ccagtctgaa ggctgaggag 420 tttgcaagga aagcaagaaa aagttaaaat gnctaaacca aagcctgact gggttcaaaa 480 524 ctaggtgctt aaataccaag ggcccantgg gcnnttaaaa acan

<210> 5828

⟨211⟩ 512

<212> DNA

<213> Homo sapiens

<400> 5828

gacaactgac ttgtcatctt tattaatttt tacaaatgca tgtctcctaa tatgaaaagg 60 ttgattttca ctttattgtg tgctttgcac atttacagca gcaacaggaa gagcttctac 120 tgaatagatt ttagtcttca aaaatgtgac tgcatcttcc atctctagtt tgtccatctc 180 ccagttattg accaagatca catgaaaacc cattgcattc aaatgccgca ttttcatagc 240 300 aaggaateet etggggtgge ttgaacceaa acaataagca gatetggaaa cacatagcae 360 agctactctt tgaatatctg tagcagaagt tgtatcacat cagaaagtgg tagcacttga 420 ttcctgttag tgtccattct gatttcaaaa tcaatatgat aattgtgtgg caagtgcaca 480 tcctttgaga agtgtccttc accttccana aggctggtca ncacctttgn cacctttgca 512 tttggatggg acnattgnaa gttccgcngg na

<210> 5829

⟨211⟩ 531

<212> DNA

<213> Homo sapiens

<400> 5829

ataagcagtt tttaatccat aaatacaaca ggcatttggt attttggcca tcagaaaaca 60 aaagttgtag tatcagtaaa ggtctgagat ggttcacttt tgtagattca attcagtgta 120 tttaaggtta acaaaggctg acattgaaat gtttaaagat aggcaaaaat tcacattaaa 180 aaaaacccta tatttctatt tagagtaaca gtaggcagta tgattccaaa agttaaaaat 240 tatttcacaa cctgtagctt cagcttggca aacagcttag attccaaaac tgattcatct 300 ctattaaaat gtaagcactt aaaaaaagag catgtctgtg tatatagaca tatattttaa 360 aggaatcaga taatctttga agcagcctta gtgtttcctt taaatttgtc tggaaatgac 420 cattgnatta gcttcacaga aaggactngc ccagcttctt tggtctaagg ntaacatggg 480 531 ngatcatttg gctnaagctt aaaaggnccc accagatgtt aaccgggggg g

<210> 5830

<211> 529

<212> DNA

<213> Homo sapiens

<400> 5830

aggaatattt acaccacaga aatcagcaaa cactacaaat cagaactttt accccaaaga 60 actagttttt aaaacattca ccaacacatc atcagcttca gtttccacct ctctcaaaca 120 ggactaataa caccaaccct gcaaatatgt tgtaaggact tcaaataata tcagtaaaac 180 acctagcaaa attctagtca cataaaaggc acttagtatg tggtatatag caaaaagtta 240 tggtactata aatgaaatct ggctatatga aagtagagca taaataataa gtaatgcagt 300 cattcatgta taagtataat aaagcaattg aactttagta gaggtgccgg gtcctttagg 360 atttttaaat gaaaagaatt aatacagaat tccatatact tttcctcaat taatgagaac 420 aatcttcttt ttgcatcttc tcctattttc caggnttctt tttaattatg anctcttggg 480 529 gtcaaanttg gcaagcactt ctacctattc cattaaacna acngnttgg

<210> 5831

<211> 501
<212> DNA
<213> Homo sapiens

<400> 5831

cctttttaga gactctgttg cccagactag ggtgcagtga tgcgatcatg gctcactgca 60 gcctcgaact cctgggctat atgcgatcct gccacctcag cctcccaagc tgagactata gacccacacc atcacgcctg gctaattctt tttttctaat acatggggtt ttcttacatt 180 gtcctggccg atctgcaact cctgggctca agcaatcctt ccgaaagtcc tgggactaca 240 ggtgtgagcc accacgctca gccttttttt ccttattact gtactaggga catttgtggc 300 360 ttttccacaa tgagacttag tagagaaatg acagcttccc tcggccctat cctgaaatac 420 actaactage tettetetge cagggetace gtttteteee taacetttge agatgtatgt atccatataa atgnttctat ttcaacaaac tgtagaaagn atncagnctg nacaggttcc 480 cttatnaagg tattaccngg g 501

<210> 5832

<211> 516

<212> DNA

<213> Homo sapiens

<400> 5832 ·

60 aacttaggtg ctcttttgcg ctatatactt taattcatgc aaaagtgata gaggactgga 120 cttgaggctc tacagaggcc tttctgagaa agctgtgtag ctccttactc tggcgaagaa 180 caagggggtg tacatcttgt caatctcaaa agcactgact gcagtctcac cagttgattt 240 gtaagtaatg tgacaagaat gatgtatcca gatgagtttg ttgaacctct ggtgaccact ggaacatagc tgtagcccca catgaaaact ctgatctgct tcttgtacag ggacacgacg 300 360 aaaatatetg tatttatagt caagtggttt ttettetttt ttettagtta ttacageaaa tactttggtc tgattgtctg tgtcttgtga caagcgatag tgacccagta gaattgcatc 420 480 agtcctggna ttcctagttc ttaaacgtgg aacaatggac tgaggctctt taagggntgc

| aacatnatna | catgggcctn | gggaagnaac | ttttgn | | | 516 |
|------------|------------|------------|------------|------------|------------|-----|
| ⟨210⟩ 5833 | | | · | | | |
| <211> 521 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | • | | | | | |
| <400> 5833 | | | | | | |
| gaggctaaga | ttacatacat | ttccatgtat | acatagaaac | ttgttgtatt | agtcagcttg | 60 |
| ggctgagttg | tgttgcaata | atatccccca | aatcttcagg | gcttacaaca | ataacggctt | 120 |
| ctctctggct | tgtgttcatg | ccctttgaag | atcagctgca | gccctgctcc | atgttctctt | 180 |
| tatgatgaaa | tggaccaaat | ccagaaacat | ggctaataag | cctgatgtca | atggagcagg | 240 |
| aagaatacct | tctcacaggg | agggccacca | ggcaggccct | ctccagttgc | tagtgcattt | 300 |
| tgtctgttgg | cctcaaagct | tggctcaaat | tgtcaggcca | atggaaagac | tgaatgcttt | 360 |
| gcctccaggc | aaaattgtgg | cctgcagagg | gtggaccctg | cattgcatct | caacgagaac | 420 |
| ggaaagctca | ctcagcatgc | tgcagncttt | catactgatt | ttgacataaa | acatnaggcg | 480 |
| ggaattcnct | tttggctttg | cagnaaattg | ggggngganc | n | | 521 |
| | | | | | | |
| <210> 5834 | | | | | | |
| <211> 499 | <u>.</u> | | | | | |
| <212> DNA | | | - 1× | | | |
| <213> Homo | sapiens | | • | , | - | |
| | • | | | | | |
| <400> 5834 | | | | | | |
| ctgagacaag | agtttcactc | ttgttgccca | agctggagtg | caatggtgca | atctcggctc | 60 |
| actgcaacct | ccaactcccg | ggttcaagcg | attctctcac | gtcagcctcc | cgagtagctg | 120 |
| ggattacagg | cacctgccac | catgcccagc | taatttttgt | attttcagta | gagacggggt | 180 |
| ttcaccatgt | tggccagtct | ggtcttgaag | ccctgacctc | aggtgatccg | cctgcctcag | 240 |

cctcccaaat tgctgggatt acaggcgtga gccaatgtgc ccagccagtt gcatattctt 300

| gacccaaaca | cagacagttc | ccccaagttc | aaaaccacaa | cgagtagccc | acacgaaggc | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| atactctgag | ggttgtttca | ctgttacagc | agtacatatt | tcgaagagac | aacagattcc | 420 |
| atttcagatg | cttctcaaga | aagaaaaagt | ctttgacaga | atctctactc | cangnetete | 480 |
| tctctcttt | tttnnnnn | | | | | 499 |

<210> 5835

<211> 531

<212> DNA

<213> Homo sapiens

<400> 5835

| gagacggagt | ctcgctctgt | cgcccaggct | gaagtgcagt | ggtgcaatct | cagctcactg | 60 |
|------------|------------|------------|------------|-------------|------------|-----|
| caacctccac | ctcctgggtt | caagcggttc | tcctacctca | gcctcccgag | tagctgggat | 120 |
| tacaggcgtg | ccaccacacc | cagctaattt | ttgtattttt | agtagagacg | gggtttcacc | 180 |
| atgttggcca | ggctggtctc | caattcctga | ccttaggnga | tccacctgcg. | ctggcctccc | 240 |
| aaagngctgg | gattacaggc | atgagccacc | gngcccaacc | tatttttctt | tatgtcttct | 300 |
| gtagctcatg | aaactatttg | gactttctct | ccctacaatt | aataggattt | tacttctatt | 360 |
| tcattttcta | ggcataaaaa | tgctattgat | tttggtgaat | ctaccagatn | gcaaggaatt | 420 |
| ttagaacttt | tttttttcc | ttttttcgga | natagggggc | ttactctgtt | ggccaagctn | 480 |
| gaacncaang | ggggtaaact | taagttactg | gnaccttcaa | tttnccagnt | t | 531 |

<210> 5836

<211> 552

<212> DNA

<213> Homo sapiens

<400> 5836

gagacagage ettggtgtt egeceaggeg acaaaagtge taggattaca ggeatgaget 60 accgtgeetg geetgtetat atttttaaaa ageatttgte ttacetteaa eeegtgatte 120

caagtgetta tecaactetg aatetttttt caeegettea tetgagaeet tgggageatt 180 tgaaaagcaa actagtacaa tactcatgtt atctcgactt cccttgngta aacaagtgtc 240 cactacceaa ttgcacacat tttccaggtc atcagatacc tcaagcctag atttaacata 300 ttcacagage tecteattae teataacate ceagatecea teacaageea agatgataaa 360 ttcatcctct tctgctctta aaatttcata aacctcaggc tctggagaaa caagttgttc 420 480 tgttgggccc ttgccatcaa cacacttgta atcatagtcc cccagagcac gaggatactg ntaatggacc attaacacgg tggatcaata cgctgcttcc tggattttgg gntcgctcct 540 552 tttccctggg at

<210> 5837

⟨211⟩ 525

<212> DNA

<213> Homo sapiens

<400> 5837

canatggagt ctcaccetgn ggcccagget ggagtgcagt ggcgcaatet cggntcactg 60 caagetecae eteccaggtt catgecatte teetgeetea geeteectag tagetgggae 120 tacaggcacc caccaccacg cccagctaat tttttttgta tt.tttagtag agacggggtt 180 tcactgngtt agccanaatg gtcttgatct cctgacctca tgatccacct gcctcggcct 240 cccaaagngc tgggattaca ggcatgagcc actgcgcctg gccaagttca ttattcttta 300 gtatettgng tetacatetg agtatatttg gtttteatte eeetgggagg ataaagtaaa 360 ctggaaaagc atgaactccc canggaaatg tttctgtctc caggtatttt cctactctaa 420 ttcaagtcct tccataaggn cctgacccca gcacaagtca ngnactaata gnaccttnca 480 aatgaatncc ccagtttgaa ttcaanggga aaatcaaatc ccttt 525

<210> 5838

<211> 185

<212> DNA

<213> Homo sapiens

<400≥ 5838 gttgtttttg gtgtttttaa ttgtttttgt taatgtaaaa acagaaccat cacagccgct 60 cagctctata acccatccag cccaagactg ttctagtggn gaaaccaaga gtagacagga 120 aggggacncg agggatggng ncgcttcagc tgaaccctaa ganccncttt ctcnccttcc 180 185 tccgg <210> 5839 <211> 480 <212> DNA <213> Homo sapiens <400> 5839 ggtatttact tgggaaaaaa agatgctaca aaaaagagac atgaattaag aaaatatttc 60 gcatgtaaga caagtgcaga taaaaatgaa aaatgtgccg ggtggtgatc tgacagttcc 120 tgggatatca gtaacactga aaatgcctag aaaacaacct tttcccagtg ttgggggaag 180 ggttctattc ctgtagagtc caaaaacaat ttttccacat tttgaaaaca tctggttgta 240 ttttggcaaa ctatggtagc tatcagcttt gaatccatat gtatttaatt ttgctggagg 300 ctggataatt aaaaccaata taactgaaaa taaaacaaca aaaagctttt ttcaccctct 360 aagagcatag aaatctacac ctgggttatc tggattccag ntgatatggg accagccagn 420 atactccaga antactcacc aatanttttg nntctaattt ccacnttatc tcatttattg 480 <210> 5840 ⟨211⟩ 553 <212> DNA <213> Homo sapiens

<400> 5840

gattgatcat taaggaagtt agaggaataa aaacacagta aaaggtttaa aacattaagg 60

| aacattttc | aggtataaat | tttataaata | caaaacaaat | tcacaaatta | ctctcaatac | 120 |
|------------|------------|------------|------------|------------|---------------------|-----|
| taaataaata | tctagttaat | aaacttggac | ttaatacctg | cagccagcac | tggtacagca | 180 |
| cttcaaggtt | ataagattgg | attcattcat | gtgtagtgtt | gaaagaatgt | actcaaacaa | 240 |
| ttaattaaga | cataaacacc | ttttctaaac | tgtgctatag | cggaagactc | atccatgtag | 300 |
| ataactctcc | cttaatacca | ccactttaaa | aaaaaatcat | caataacaaa | ataaatcgtg | 360 |
| ggtgaaaaaa | tattttccaa | gatctctgga | cacatgaatg | atctcaaaaa | tgtacaaaaa | 420 |
| cctctgtaaa | ccagtactgn | atccaataca | tctatcaaac | ttattagata | ctggaacaaa | 480 |
| actggagcna | anggatatct | ttcctacatt | ctcccgaggg | cttaatatta | aaattngg <u>g</u> a | 540 |
| atatagngcn | nnc | | | | • | 553 |

<210> 5841

<211> 541

<212> DNA

<213≻ Homo sapiens

<400> 5841

| ggactgagac | catcaaaagg | gaagaattag | gagggttcct | ttggtttgct | caggtcccgg | 60 |
|-------------|------------|------------|------------|------------|------------|-----|
| cctgaaaaaac | atggctctga | catccaagat | gcctgctgct | ctgtccctga | cttcagtctg | 120 |
| aaccccaccc | tgcccacccc | aaggccacgc | agatggttac | tgtgggaaca | atcccagcct | 180 |
| tctatctccc | cggggcctcc | ctccctgctc | tgcttccctc | ccctgagcac | ttgaaacatc | 240 |
| gccagctttg | ctaccttcag | tcccgccacc | acggggctct | ttcaaggctg | tgggatcggc | 300 |
| agaagagtaa | ccaccaccgc | atcccagaaa | cactgcccag | gaaaaactgc | tccatctgct | 360 |
| cctctgcccc | agggccagca | ggaggggaag | gaaggggctg | gaggtctctg | cagggaagcc | 420 |
| ttggggttcc | tcctgatatt | gggactgctg | cctggccagn | ttctactctg | ntgcaagaat | 480 |
| ctggacaggc | aagantactt | tntcccccaa | gggtttttn | taacggttga | gcttactggt | 540 |
| t | | | | | | 541 |

<210> 5842

<211> 542

<212> DNA

<213> Homo sapiens

<400> 5842

60 atttttttga gatggagttt tgcttgttgc ccaggctgga gtgcaatggc gtgatctcgg ctcactgcaa tctctgcctc ctgggttcaa gcaattctcc tgccttagcc tcccgagtag 120 ctgggattac aggcatgcgc caccacact ggctaatttt atatttttag tagagacagg 180 gtttctccat gttcgtcagg ttggtctcga actcccaacc tcaggtgata cgtatgcctt 240 gacctcccaa agtgggaggg ttgcttgagg ctaggagttt gagatcagcc tggggaacat. 300 360 agtgagaccc tgtgtattta aaaaaaaaaa aaaaaaatag ctgggcatgg tgggtgtgtg tctgtaatcc tggctacttg ggaggctgag acaggaggat gatctcttga gcccaggaag 420 ttcacaactg cagtgaggat atgaatcgta ccattggatt ggaccatttg cctgggggac 480 540 anaagtggga accettgggg etteggaaaa aaggttaent ntaatggaat taattgggaa 542 tt:

⟨210⟩ 5843

<211> 476

<212> DNA

<213> Homo sapiens

<400> 5843

aaacacaggt caccatacac taattttcaa gtccgtatca gaaggaatat ctgttaaaaa 60 caaaaacaaa aaccatgatt caacagaaaa tgtgacagat tccttaggtg caactttaga 120 aacctaagtt tcaaaggaga aaaacagtag ttactccagg aattttaact cactaaccac 180 agttttatca tggctctgta agacagaaaa atggaacaaa atgtatatag ctgttggcga 240 tacgagcctt gnggctcaaa ttgcatacca aacatgggat ggagtaaggc tgatggctag 300 aggtaatcac ctctaagaga aatgaactgg gaaatgattt ataatctacc ctacanggat 360 420 atactgctag gttccattta gagtngtcca gctttcccta tgggaaggcc caatgggagg teentantge aacatnacag ggnetteett atteetttt ttengaagna ttaagg 476

| <210> 5844 | | | | | | |
|------------|------------|------------|------------|------------|------------|------|
| <211> 548 | | | | | - | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5844 | | | | | | |
| gttcattttt | taaagagatt | aagctataag | caaacacaca | tacaacattt | catcattcaa | 6 |
| ttcaggttgc | gttttaagaa | agtcttccgt | gctggtaccc | tgttttgttc | aattttttc | 12 |
| tgcataaact | aaattggtat | ctgaaaggct | tcatagaaaa | tagaaacttt | caacttttt | . 18 |
| ttcctacaaa | gaaaaacaaa | tagtatccaa | aatattaagc | attaattgtt | tgccaatttt | 24 |
| ttcttaaata | ttttacaaac | ataggaaggt | ggttttcata | atgttcataa | caaagaattg | 30 |
| catttctgct | cttagcactg | actacgtcaa | tgacatcttt | tgtccttgtc | ccaagagggt | 36 |
| cagtttgtgt | agccaccatc | agagctatag | gaggacgtgg | gaccaagtaa | agatgctggc | 42 |
| tccttgcaga | cccaagggtg | nccatcatgn | tcatgtgggg | gcaccactac | accccaaag | 48 |
| agcttctaag | tgctttcttc | antaatggnc | catcagagta | agtaggtttg | ggctataaga | 54 |
| aagccant | | | | | | 54 |
| | | | | | | |
| <210> 5845 | | | | | | |
| <211> 543 | | - | | | · | |
| <212> DNA | | | | • | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5845 | | | | | | |
| ctgcagacaa | gtaaaccttt | tattttaaac | cacaaatagt | cagcaggtgg | ccacaactat | 6 |
| ccatgtttca | ttaaaatcac | ataaaaccta | ggtacaaaag | caccactgat | tattgctcta | 12 |
| gaaaaactgc | atgaaaaatt | caaatatgca | cagtaaaaac | accacagtat | gcacaggact | 18 |
| aaattttaaa | gcaagtgcat | ggaatgctga | atcaatctta | cacacagett | ccaatattta | 24 |

actgatattt attttacttg aggatgatgt aaatttccaa aaagcatgac tatgagacga 300

| taaaatgtcc | atccttatat | attttcgtat | gccaactagt | agagtcctaa | aaaattagca | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| tttacaaaat | acttggtaaa | aatagctttt | aaaagttgtc | ccaagagata | cntanaatca | 420 |
| accccaattt | ttcatggaca | attcattctc | cctcggtatc | tacagattca | gttttcttgn | 480 |
| gccttccntt | tccaggtttc | ctggnttttc | ctncttnttc | ccttttagca | cctttgntaa | 540 |
| atn | | | | | | 543 |

<210> 5846

<211> 541

<212> DNA

<213≻ Homo sapiens

<400> 5846

| cttgaa | atgg | agtttcactc | ttgttgcaca | ggctggagtg | caatggtgca | atctcagctc | 60 |
|--------|------|------------|------------|------------|------------|------------|-----|
| actgca | acct | ccacctccta | ggttcaagac | attctcctgc | ctcagccttc | caagtagctg | 120 |
| ggatta | cagg | catgcaccac | cactcccagc | aaattttgta | tttttcatag | agacaaggtt | 180 |
| tcacca | tgtt | gtctaggctg | gtctcaaact | cctgacctca | ggtgatccac | atgcctcggc | 240 |
| ctccca | aagt | gctgggatta | caggcgtgag | ccaccgtgcc | cggcctanac | tgtgcatatt | 300 |
| ctcttg | aagt | gtgtgtataa | taaacaaatt | aacaaaaaaa | aaagaactgc | tttaaaatgt | 360 |
| atattt | aaaa | taaaatagtt | ttaactcaat | cccattttct | gtgatatagt | tagccatact | 420 |
| ggttaa | tttc | tcaaatcagg | ttgactgntt | tttctcaaat | tgnatgagtc | cctttgaaaa | 480 |
| ttttgg | ggnc | acttttggaa | gggggtgcan | aaagggcaaa | aaggcctcgg | ggccttgggc | 540 |
| n | | | | | | | 541 |

<210> 5847

<211> 551

<212> DNA

<213> Homo sapiens

<400> 5847

aagacggagc ctcgctcttt tgcccaggcg ggagtacagt ggcgcgatct cggctcactg 60 caageteege eteeeggtt caggecatte ecetgeetea geeteectag tagetgggae 120 tacaggtgcc cgccaccgca cccggctaat tttttgtatt tttagtagag acagggtttc 180 accepted tag ccaegategt ctcgatctcc tgacctcgtg atctgcccgc ctcggcctcc 240 caaagtgctg ggattacagg cgtgagccac cgcgcccggc ctttttggnt tttttttttg 300 agacagagtt tcattctcat tgtccaggct ggaagtgcaa tggtgcaatc tcagctcacc 360 acaateteca ceteccaggt tteaagtgat cetettgeet cageeteceg agtagetggg 420 attacingge atgeaacace acgeecagni gattitigga tittiaggia gaaaacnggg 480 gttctctata ttgggcaact gggcttaaat ctcctgacct naggggaact gcctggcttt 540 551 ggccttccaa a

<210> 5848

⟨211⟩ 535

<212> DNA.

<213> Homo sapiens

<400> 5848

ccctcagtct tttagactct cagctgcaca acttgattgc cttacaaatg acctgcttca 60 aggatgtgga aattectaat ttettetggg aacettetgn gacacettea eeaggaacat 120° caacatgtat ttccctgctg ccgtatttgg ttttcttccc atctcgggga cccttttctc 180 ttactgtaaa attgtttcct ccattctgag ggtttcatca tcaggtggga agtataaacc 240 ttcaccacct gngggtctca cctgtcagtt gtttgctgat tttatggaac aggcgttgga 300 gggtacctcg gttcagatgt gtcatcttcc ccgagaaagc gtgcagtggc ctcagtgatg 360 tacacggtgg tcacccccat gctgaacccc ttcatctaca gcctgagaaa cagggatatg 420 aaaagtgtcc tgcggcggcc gnacagcanc gcaagctaat ctcaaaaact tcttaacngg 480 tccattccnt ttggaggatg ggttaaaaaa ggccncaggg gcaaatagaa tggtt 535

<210> 5849

<211> 130

| <212> DNA | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> ·5849 | | | | | | |
| ccagacttca | atcaacattt | taattaccaa | gtctatattt | agcaagacaa | tgtgggagag | 60 |
| ataaagagga | aggaaggggt | aggtggggag | gggcnnnnaa | cggngctgnc | ccnttttctg | 120 |
| cattggctgc | | | | | | 130 |
| | | | | | • | |
| <210> 5850 | • | | | | | |
| <211> 547 | | | | | • | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | • | |
| <400> 5850 | • | | | | | |
| actgtttgta | gaaaaggggt | ctcattctct | tttccaggct | agtattctgc | tttttaacat | 60 |
| gaaaagaagg | aatgaagttg | tgcagcctgc | tttgtgtaat | gaataaactt | ccttgatgca | 120 |
| atagagctca | ggaagttcct | acaggtcaaa | tcctttctct | tccctttgcc | tatgtatttt | 180 |
| atgtattttc | attatttctc | caatagaatt | actactgttt | tttctttgga | agaaaaatta | 240 |
| gaaatgataa | taatgggaga | catgcactga | ggcagtgaaa | caaaattttt | tctaacttga | 300 |
| acttatctag | aaagtaagtt | ttgctcacta | gttaacaagg | tatttttatg | ccaaatgggc | 360 |
| agctcagaaa | atggaaaact | ctggagggaa | ggaacttcag | agcccaaatg | aaagtcattg | 420 |
| actctagcat | actaaatggg | ggatgttatg | ttgnaaagcc | tttttcagct | aacacaccat | 480 |
| taatcatgng | gaagcttcgg | gactgggatg | gntggcttct | ggctggatca | tagtcaaaaa | 540 |
| nccgant | | | | , | | 547 |
| • | | | | | | |
| <210> 5851 | · | | | , | | |
| <211> 543 | | | | | | |
| <212> DNA | | - | | | | |
| <213> Homo | sapiens | | | | | |

<400> 5851

gagtettace etgteactea ggetggagea tageaactet gteatgette aetgeageet 60 caaactcctg ggctcagaca gtcttcccac ctcaggctcc tcagtaccta ggactacaga 120 tgtatatcac tatgcctagc taatttttga ttttttgtag agatagggtc tccctatgtt 180 gagtaggetg gtettgaget ettggeetea ageaateete ceacettgge tteecaaage 240 attggaatta caggaatgaa tgagtetetg tacetggtet etteatgtat ttttaagate 300 tgataataag tgcttacact tttagcactg tcttggtgaa ttttatcatt atataatgtc 360 cctaattatc cttggcaatt ttggttgtcc taactctact ttgatgaata taaaaatggc 420 tttttaattt attttttga gacaagagcc tactctggtg cccaggttgg aaaagcantg 480 540 gtggganctt ggcttaatgg cttncaaggt caagccaatt ntccggcctn nncttcgggg 543 gaa

<210> 5852

<211> 545

<212> DNA

<213> Homo sapiens

<400> 5852

60 aaggttgaca ccccatttat tggagaagac cccagcaccc gcccctgag gtcttaaggg 120 ctttggtgta tccttggtca cgagcgctgg gccaggaagc agagttcctg agagccaagt ctagtggttg agagaggacc ctggctgggc ctggggagca ggaagccatc tgtccagctg 180 240 ggcagccccc atgggtccct ggtgcagccc cggccatgtg tccagcgccc catactccat 300 gaggggggtc tgcaccccat cacacgctgg ttctgcaggt ctgcacccct gtgaggctgc ccctgggggg catgggttct gttgggctct tgctcccagc atggatgacc cagcgatagc 360 420 agtcaagtga tgcgcttgtt gggtgcatgg gggccacagc gggtgcaagt acacgatgcc cagtgcaagc aggaccacca aaaagacaca cgttggcacc caggaagtgc accagcaagc 480 540 accognicat teetitigge tigtgettegg naagaacaag ettteecagg gittitigg 545 gcttg

| <210> 5853 | | | • | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <211> 542 | | | | | | |
| <212> DNA | • | | • | • | | |
| <213> Homo | sapiens | | · | · x | | |
| | | | | | | |
| <400> 5853 | • | | | | | |
| acaaaaacaa | ataaggattt | ttatttgcag | tactttccac | tcttccttta | aaaacttgcc | 60 |
| atttgcttat | cagttcctct | ggggctgacc | cactcaaaca | agacaaagga | taaagaacaa | 120 |
| aagatagtcc | tccgaggtta | caggcttgga | agggcagaga | ggagctacga | accttggaag | 180 |
| aaaaacaagg | tgctcaggaa | tttatcgcct | aacatttcac | ttccccaccc | accccttagt | 240 |
| gctcccactt | tggcagtgat | ctctctttgg | ctttaaagag | aaagggggaa | atgtgccttg | 300 |
| ttttgcaggt | gtgcaacaac | acagctctgg | catctcaagc | agcaggggag | aactctaaga | 360 |
| cagaagaatt | tcttcatgaa | aatcacgggt | atgttatcac | atactgtctc | catggcccat | 420 |
| acaaggactc | cttaagggtc | tttctaacat | accaacatat | ccccaccaa | ctcagnagag | 480 |
| aggtttcctt | ccactggaat | agaaaaccnt | tggctcatta | ttacaggctt | aaaaancccc | 540 |
| сс | | | | | | 542 |
| | | | | | | |
| <210> 5854 | | | | | | |
| <211> 539 | | | | | | |
| <212> DNA | | | * • | | | |
| <213> Homo | sapiens | | | | • | |
| | | | | | | |
| <400> 5854 | · . | | | | | |
| ccatctgcac | tcttttattt | gttgcaatac | tgtttataac | agctaagatt | tggaaacacc | 6 |
| ctaagngttc | atcaacagat | gaatgaagaa | aatgtggttc | acatacaaaa | tggagtactc | 120 |
| ttcagccata | aaagagaatg | agatcctgtc | acttgcgaca | gcatggatgg | aactggaggt | 180 |
| cactatgtta | agtgaaatag | gccaggcata | gaaagacaaa | cattgccatg | ttctcattta | 240 |

tttgngggat ctaaaaatca aaacaacgga actcatggat atagagtaga aggatggtta 300

gtaaaggctg aaaaaagtag tagacagctg agataatggt ggggcagagg tggggatagg 360 ttaatggtc aaaaaaagta gaaagaatga gtaaaactta ctatatgata gcccaatagg 420 ggggctatag tcaataaaaa cttaactgca tattttaaaa tcngaggggn atcagggttg 480 gtttggaacc cccanggata atgttgaggg gatgggtacc ccatttttca tggngggc 539

<210> 5855

<211> 548

<212> DNA

<213> Homo sapiens

<400> 5855

60 gagacagtet cattetgtea eccaggetgg aatgeagtgg cattatettg gettggeaae ctgcaacctc ctcttcccag gttcaagtga tcctcctgcc tcagcctccc aagtagctgg 120 gattacaagc gtgcaccacc acgaccagct aatttttgta tttttagtan agacatgttg 180 gccagcctgg nctcgaactc ctgacctcaa gtgatctgcc cgncttggcc tcccaaagng 240 ctgggattat aggtgtaagc cactgcacct ggcctgagac atccagattt cttctgatct 300 aaataacctt aaagtgttaa caagnacaac taagtaggct tgggacagaa aaatgaagtt 360 agccaattgn acttaaaatg tgacaattca nagaatcaca gggctacctg nttcacacta 420 gtttctatct gctagccaag gtgcacatta ngggtaaaaa ggataacaac ttcttagcan 480 taagtggaac aataataaan ggnatttcaa tcccattacc aaaaatgnng atttggttca 540 548 aaaaattc

<210> 5856

<211> 428

<212> DNA

<213> Homo sapiens

<400> 5856

ggtaaagatg gggtctcgct atgttgctca ggctggtctc aaacccctgg cctcaggcaa 60

| tcctcctgcc | tcagcctccc | caagtgctgg | gattacaggt | gtgagccacc | acactcagcc | 120 |
|------------|------------|------------|------------|------------|------------|-----|
| gggcccgtct | gggttaaagg | tacttgcttt | ttttttttt | tttttttt | ttttcgngan | 180 |
| atggagtctc | attctggggc | ccaggctgga | gtgcagnggc | gngatcttgg | ctcacggcaa | 240 |
| cctccgcctc | ctgggttcaa | gcaattntcc | tgcctaancc | tcntgagtag | ctggnattac | 300 |
| aggcacctgc | caccacgccc | ggntaatttt | tngtattttt | agtagagatg | gggtttcacc | 360 |
| atgttggcca | ggctggnctc | gaactcctga | cgtcaagnga | tccacccacc | ttantntncc | 420 |
| aaagngca | | | | | | 428 |

<210> 5857

⟨211⟩ 321

<212> DNA

<213≯ Homo sapiens

<400> 5857

| ccatcaaang | taatttattt | aaatancaat | tcaatngcat | gttaagtaan | ccagttgtag | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| caatataaat | tttganaaaa | tctggcaaat | taancctgta | tctaaangca | gcatattctg | 120 |
| ggatnctacg | gaatgaaaaa | taaaangngt | tgactttcaa | gtcaggațga | ttnatttgcn | 180 |
| cttaaaaata | taatttctaa | natgacatct | gttttcaaaa | acatcctaan | ggtaaaanca | 240 |
| ggctacagga | attgttgnca | tcatgttgaa | attttanatt | ttatattanc | attagcttaa | 300 |
| aaatcataga | cantancatt | å | | · | | 321 |

<210> 5858

<211> 477

<212> DNA

<213≻ Homo sapiens

<400> 5858

gagacagagt tttgctcttg ttatccaggc taaagtgcaa tggcacaatc tcagctcact 60 gtaatctctg cttcccgggt tcaagcgatt atcctgcctc agcctccgag tgaggnggga 120

ttacaggcgt gtgccaccac acccagctaa ttttatgttt ttagnanaaa cggggtttca 180 cagtgttggt cactctggtc ttgaactcct gacctcaagt aatccacctg cctcggcctc 240 ccagagtgct gggattatag cgcaagtcac tgcaccaggc caaaattagn ttttatgcat 300 gcctaaagat gtttatgctg tagactttt ttttttttt tgacaaagng ttngctctgt 360 tgcccaggct ggagtgcacn ggtgtgatct cagcttactg caacctcaag cttcccngt 420 agctgggatt acaggngcgc acnancacaa ccgggttaac tttttggatt ttannca 477

⟨210⟩ 5859

(211) 572

<212> DNA

<213> Homo sapiens

<400> 5859

catgttggat aaggcaggct ctatgaagta tttttttaat aggtcttcat aagacattac 60 aagctattga atteccatea agaaaaceta tttetattta attgtgetaa gtgetaaggt 120 tttactcttt aggttttcca tttttttcc acttgtgcat tgttcctatg caggcccctc 180 tggatatgtg ttgtgaagtc atatttgtcc gtgcaaagat gctggcatat gctgcactgg 240 300 aaaggtccac tgtcaccatg gcaactcata tgcaaagcat acatcacttc atccagaaag acaatgecae agtgeacaea ttttgttgaa agtteatett gagtaettet ateaaettte 360 420 tetgntttta etacatteaa gggaeettea ttttttaeat ttggtggnge ettegtttte 480 tccttggang cccgttgcaa gttggccagg tctggaatgc ttggatcgcc aaatctaaan 540 gaatgcattg gctgaaccca ccagctgaaa aatgaggang cnaattggaa ggtgggataa 572 ggcccatagt ttngcaagga tttggaaggc ca

<210> 5860

⟨211⟩ 535

<212> DNA

<213> Homo sapiens

<400> 5860

gagacagaga cttgctctgt tgcctaggct ggagtacagn ggcgcgatct tgactgattg 60 cagcctccgc ctcccgggtt caagcgattc ttgngcctca gccgccccag tagctgggat 120 tacaggngca catcaccata cctggctcat ttttggattt ttagtanana cggggtttca 180 teatgttgge caggetggte tggaacteet gaceteaagt gateegeeea tnteggeete 240 ccaaagngct gggattacag gcgtgagcca ctgcacctgg cccaaattaa ctacttctac 300 360 tttgatgaat gtcttcccac taaatatcat tttattatac ctagtaatat tagccaaata 420 acagtgttta atacaactaa tttatcagaa caaattacaa ctattcataa taaaccctac atatnaaaat gatttttaaa agctcaatat taacnccaat tgaaagaaac ctaanactgc 480 535 anaatttggc cactntttca atttcctttc cnggttgggt tatggacccc aaatt

<210> 5861

<211> 478

<212> DNA

<213> Homo sapiens

<400> 5861

ggtattttta gtagagatga ggtttcaccg tgttagccag gatggtctcg atctcttgac 60 ctcgtgatct gcccgtctcg gcctcccaaa gtgctgggac tacaggcgtg agccaccgca 120 cccggccaag actaaagtag gctttaaacc cgtaacaggt atgtgctcca agtccttctt 180 tcctgacttt tcggaaaaaa atttaaatgc ctcattacat agtggcattt aaaaactaaa 240 atgggccagg tgtggtagct cacagctata atcctggcta ctcaggaggg tgaggtagga 300 gcattgcttg aggcaggaaa ttcaagacca gtctgggcaa cacagtaaga tcccacctcc 360 cctgaaaaaa tttaaaaata aatcagctgg gcctggtggc atgtgtctac agtcccagct 420 acttgggagg ctaaggtagg angattactt gagncttaaa agtttnangc ttgnanng 478

<210> 5862

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5862

gagacagggt ctcatcctgt tgcccaggct ggagttcagt ggcgcgatat agctcactgt 60 aaccacaaac acctgggctc aaacactcct cccaccttag tctcctgagt acctggagct 120 acaagcatgt accaccatgc ctggctaaat ttttcatcct tatttttgaa gaggcggggt 180 ctagctatgt tgcttgggct ggtcttaaac tcctggccac atgtgatcct ctcacctcag 240 cctcccaaag cactggaatt acaggctgag ccaccgcgcc tggctaatca tgttttttaa 300 360 aagcetteea ggttgaagtt aaaggeaaaa aaaattteta gatgaataag agceeattae 420 taagcatcag ctatgcacaa agcatcctaa gagacaaaaa aaaaaaatga agtgacagtc 480 cctggagaat tcataattgg agatgggaag acagatggtc ctaaaaatac cgaggagttg 540 agaagttaac agctttaaag nctcanatga cttgcctggc aggcacttta nttgggccca aggttccttc ntaaacctgn n 561

<210> 5863

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5863

60 ggccatgtaa atgtcttctt tagagaagtg tccattcata tcctttgcct atgttttgat 120 aaggttgttt ttttttttct tgtaaatatg tttaagttcc ttttaaattc tggatattag 180 acctttgtca gatgggtaga ttgcaaaaat tttcttccac tctgtaggtt gcctgttcac 240 tctgatgatt atttcttttg ctgtgaagaa gctctttaat ttaattaaat cccacttgtc 300 aattttggct tttgttgcaa ttgcttttgg tgttttcatc atgaagtctt tgcccatccc 360 tatgtcctga atggtattgc ctaggttttc ttccaggatt titatggttt tcagttttac atttaagtet ttaateeate ttgagttaat ttteatataa ggtgtaagga aggggteeag 420 480 tttcagnttt ctgcatatgg ctagccaagt tttcccagca ccatttactg gaataggaga 540 acctttccca tttcttggtt ttggcanggt tggccaaaga tcaaatgggt gnaaaccatg

| gtggntt | taàt | tctgagggcc | cggtctng | | | | 568 |
|---------|------|------------|------------|------------|------------|------------|-------|
| | , | | | | | • | |
| <210> 5 | 864 | , | | | | | |
| <211> 5 | 666 | | | | | | |
| <212> D | ONA | | | | | | |
| <213> H | lomo | sapiens · | | | | | |
| | | , | | | | | |
| <400> 5 | 864 | | | | | | |
| atggggt | ttt | tttttggagt | tatttcctca | gtggagcaca | aattgccccc | acagtctgat | 60 |
| ccaatta | aat | taaggaccat | ttgaattttt | gaggctagtc | tgtgatatct | gttatgactc | . 120 |
| caggagg | gca | cgttttacct | gcattgtcct | ctggctctcc | cttgtaaact | aactggccta | 180 |
| tggttta | ıgct | tgctgttctc | attaaggtgc | aagcctcctc | ttaattaaga | aacaccctgg | 240 |
| cttctag | gcc | acacctccat | ggaatttagg | ctctgcaaca | catagctagc | tagtagcaat | 300 |
| aagaaat | gct | gatggcctgt | gcctcccaag | gagataccat | gttcctcaac | tgggagctgg | 360 |
| agagaga | ıgga | atccctgtgt | tcttgaatga | acttcaggta | gaaggtgaat | ttttatcaca | 420 |
| ctgaact | gga | agggggaagg | agggaagctg | tggntcaaat | gtcacccgat | tcttactctt | 480 |
| cttacca | agg | tttaatagat | ttcttgaata | aatggtcctt | catttggcta | aggccctang | 540 |
| ccatttt | cca | aaggttttaa | aatagg | | • | | 566 |
| | | | | | | | |
| <210> 5 | 865 | | | • | | | |
| <211> 5 | 557 | | | | | | |
| <212> D | NA | | | | | | |
| <213> H | [omo | sapiens | | | | | |
| | | | | | | | |
| <400> 5 | 865 | | | | | | |
| acccaaa | gtg | tcctttattc | tttatcàtcc | tatttgagtt | ttattgtttt | tacacagctg | 60 |
| ggaaatg | ctt | aaggtacaaa | ttaataaatt | ttaaactcag | tatggaaaat | acatttaata | 120 |
| aattaaa | ıgca | aaaaccaaag | aagatctgag | gagatccaag | agatcaagac | aatctgtaac | 180 |
| cagagto | tas | agtatocaag | gagetactet | ttttgaggca | tatteteete | agettecagt | 240 |

| tatcatttga | taaacacatc | agcaaaaggt | tcagtgtttt | aaacaaatgt | agactttatt | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| ttgtactgta | caaagtgcta | atgtcagtag | atccattaaa | atatagaata | tttaagaaag | 360 |
| atcattaata | aaagtaatgg | tcattcaatt | taatggtaca | gtttacagcg | gtttactgct | 420 |
| agtggtttaa | gtcagcatga | gcagtatcaa | aggacttatg | tagctaggtt | ctaaacttta | 480 |
| cagaaaaccc | agtccattcc | agggctatag | ccatataagc | ntattcatat | tnnaatagtt | 540 |
| tccatatgta | caggaan | | | | | 557 |

<210> 5866

<211> 414

<212> DNA

<213≯ Homo sapiens

<400> 5866

| caaattgcat tttac | agnaa aaatgcagac | cactttggat | agctatggct | cgatacttct | 60 |
|------------------|------------------|------------|------------|------------|-----|
| gggtgccctc ctcct | aagac atcctcttct | tacattccac | tgaacagaaa | accatccctt | 120 |
| ctactggcat gaact | tctgc ccaaggaggc | atttgctgca | gcaagagcac | agaaggcact | 180 |
| gtgtggatgc atgcc | agctg aaattgttat | aggtcacgcg | ctgcacttct | gggtcgatgg | 240 |
| cattgtggca tcctt | gacac accacagcgt | gattcttcac | atagcagggc | ttgcacacgg | 300 |
| gcttgncatt gacca | tcacg tatatctccc | cagctagaag | gctatcacag | tcaaagcagc | 360 |
| agaagtgttt naggt | gccaa ttctgntttt | cngcctgggn | natcctcatn | gcng | 414 |

<210> 5867

⟨211⟩ 572

<212> DNA

<213≻ Homo sapiens

<400> 5867

gagatgaagt ctcgctctgt tggagtgcaa tggcgtgatc tcagctcact gcaacctccg. 60 cctcccgggt tcaagcaatt ctcttgcctc agcctcctga gtagctggga ttacaggcat 120

gtgccaccac gcccggctaa tttttgtatt tttagtagag atagggtttc tccatgttgg 180 taagactggt ctcaaactcc tgacctcgtt atctgcctgc cttggcctcc caaagtgctg 240 ggattacagg cgtgagccac cgtgctgagc ctatcttttg ctctttaaaa ttttattctc 300 ctgtgaccca ctggtacagg atacagtaac gtataacaca gcaagagaca tctaacccac 360 tcaagaatca tgagattttc ctgacagtat ttatacaaga ggcctaaatt gaaaatgtca 420 ttaatttaaa aagaacatgt tagccaggca agtggctcat gcctgtaatc tcaacangca 480 tggaaggcon aagccggaag gacccaaang gcaggaaatc gagaaccttc tggctnacat 540 572 aagggaaacc atntttctta aaaaaaaaaa aa

<210> 5868

<211> 562

<212> DNA

<213> Homo sapiens

<400> 5868

gagagcacaa ctccaaatca tcttttatta atataaaaag ggcatattta gcaaaagaca 60 cacagataaa agagtcacta tggctcagga cacaaggcag ggaggtgcca ggcctgtgcc 120 180 cctgctgggg gagaaggagg ctcgggacaa agtgggagaa gtgctgggaa gggctgagcg gtaggggcca caaaagttcc ggtgggcaac actgtcggca ggtcatgggt ggagcttaca 240 aaatttatat aaattctaga agaactaaaa ctaattttct atcagtctac attgtgtgta -300 aggagggaaa agaaaacata ttgataaagt ttgcttcata ctctaaaata gccagtgata 360 420 tttcaacatg ccaaataagc aactgttgct tcctttttga acccttatag ccaacagtta 480 gtgttccaag taagagtgga taaagtcccc caaaatcaag ttctagtaag aagacatttc 540 tttcaattaa acttaccccc tttntacagg aaatcanctt aacaagggaa tcctggcttt 562 aactattann tggcccattt an

<210> 5869

<211> 548

<212> DNA

<213≻ Homo sapiens

<400> 5869

| gagacagggt | catgcactgt | caccttggct | ggagtacagt | gatacggtca | cggctcactg. | 60 |
|------------|------------|------------|------------|------------|-------------|-----|
| cagcctcctg | gactcaggtg | atctttccac | ctcagcctcc | caagtagctg | ggactacagg | 120 |
| tacacaccac | aatgcccagt | tagtttttat | ttatttattt | attttgtaga | gatgaagtat | 180 |
| catcatgttg | cccaggctgg | tattgaactc | ctttgctcaa | gcaatccccc | tgcctcagcc | 240 |
| tcccaaagta | ttgagattac | aggtatgagc | cactacaccc | agccccaatg | ttatccttta | 300 |
| agtataataa | gattataaca | tttcagaaat | caacatgtgt | tagtacaata | ttttataaca | 360 |
| ttcaaagatg | gaaactaaag | taaatttcct | acacctacct | ttatttaaat | taataggaaa | 420 |
| atcaatgtgg | tggcataatc | ctttcaaagg | tagaaactta | tgnttttaac | tagctgatcc | 480 |
| aagacttgca | tttgctttct | gatggttaaa | gnaactacct | ttactttanc | aagnccattt | 540 |
| antaattt | | | | | | 548 |

<210> 5870

<211> 423

<212> DNA

 $\langle 213 \rangle$ Homo sapiens

<400> 5870

| gctgacctgg | ctatcttaag | tagttagaag | ctatattata | atagggccac | actatggtag | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| cttaaaatta | tagaataggg | agattaaaaa | tatcttacag | ngtttattct | aaatctgata | 120 |
| gtattttaca | aggtgtgtgt | gtgtgtgcgt | gtgcacgcat | gtgtgtgttg | gagacagggg | 180 |
| cagctgatat | tcatggcaac | atgtagtatg | tgccagtatc | ttgaacaatg | atatataatg | 240 |
| ctaagactca | aatggtttcg | gtttttaata | cttttgtttt | aagctcaggg | gtacaaatgc | 300 |
| aggtttgtta | cataggtaaa | gttatgtcat | gggggttttt | gtacaganta | tttcatcacc | 360 |
| taggcnttaa | gcctagtacc | tattaggnat | tnntcctgat | tctnnccctc | ttcctaccct | 420 |
| cct | | | | | | 423 |

<210> 5871

| <211> 566 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | • | |
| | | | | | | |
| <400> 5871 | | | | | , | |
| gaaaaaattt | ccaaatgcat | caggaatctt | acagtaccaa | ctcatcattț | ttcataacac | 60 |
| agatttatgt | cttcaattgg | agctatttag | aaattggccc | atagccacct | gtaccctaaa | 120 |
| ttttctctgg | gctacttgga | agtatttaga | gaaatgtgag | atggtagttg | atgaaaacag | 180 |
| agttcttcat | cccaacagta | acagctagat | aactgactgc | ttggcçaaac | atttgactca | 240 |
| atccagggaa | tggaagatgc | cattcaaagc | cagattccag | tttgtgttaa | ggattatatt | 300 |
| tctgtcatca | catttccttg | acagtcccgc | caactaaaaa | tccccagca | aaagcccagt | 360 |
| gattaaattc | tcctggagca | tatttttcca | gcttatggaa | acaatctgct | gcagtgtctc | 420 |
| ctgtaatatc | caaaggatag | ttccatttct | gaggctgata | tatggaagta | gattactcac | 480 |
| aacccaatcc | atcttccacc | aacaatttga | ntttgaaatg | actatggaaa | ggactggggn | 540 |
| aatnaaaatc | ccatccctgg | aanggg | | | | 566 |
| • | | | | | | |
| ⟨210⟩ 5872 | | | | | | |
| <211> 563 | | • | | ÷ | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | • | |
| | | | | | | |
| <400> 5872 | | | | , | | |
| gagatgtagt | ttcgctcgtt | gcccaggctg | gagtgcaatg | gcacaatctt | ggctcaccgc | 60 |

120

180

240

300

360

aacttccgcc tcctgagttc aaatgattct cctgttgaaa cggtccagcc caggaaactt

gtgcaagcag aaggaggatg atagtggcct tcatgattta tctcatgtat tttcacaacc

agggaacctt ttaatccggg aatttgccac aggagccctc aaagctgaga tgtaattaca

ctaaatattc agcccaagta aaagagtttg caggtgtgga aaggaggagg gggnaggtgc

tgctctgtga ctaggttgaa aacctcctgc ttctactcca tagcacagtt aaatgattca

| ttctccaagg | catggaatag | ttcttgcttt | ataaaaatag | tactgcgatt | aaaaaaaaag | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| cacttctgcc | aaaggaacca | tgttccaaca | ccggaaacaa | ggtgttctgc | ttaaacagaa | 480 |
| taagatcacc | anccccatcc | atccttnctt | cctggtcccc | tccaactttg | agttgggcat | 540 |
| tccaccatgn | cccggggggg | agg | | | | 563 |

⟨210⟩ 5873

<211> 483 ·

<212> DNA

<213> Homo sapiens -

<400> 5873

| caaataaata | tcctttatta | aagaaaaaga | ggaatattgt | taaaagcacc | aaaactgtag | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gttgttacat | tgcatgtaca | acaagagaaa | ggtgattgca | atacttggtg | tccaagtact | 120 |
| taactctgaa | gtcatgagtg | taaaaaacat | gaaatacaaa | gcaatacaat | tacaatgcag | 180 |
| aaaagctgca | ctaaagagca | aaaggcaaca | gtcaaaacga | ttactggaga | tttcatggta | 240 |
| ttgctataaa | tgcttgctta | gtttttcctc | tgtactttta | atactttagg | atgttaattg | 300 |
| aacatattta | agtattgtaa | atttgcaaga | gttggcattt | acaatacact | gtgcacactg | 360 |
| tccatttaat | gtaatggtac | taaagccatc | cttacaagcc | aagcaaagca | caatgtgcta | 420 |
| gtgttttgct | tctacctttn | ataatattgc | acaaagctag | tnaatggnga | nngagtttnc | 480 |
| nat | | | | | | 483 |

<210> 5874

<211> 584

<212> DNA

<213> Homo sapiens

<400> 5874

aactcagagt taactagaaa aatccctttt attaaaatac attgtaaata ttgctcatta 60 atttcctgta cttgaaacat tttttctgaa cccctaagca ccacttagga tagatgaagc 120

aaacctgatg tgttttattc ttctctatta cctgagtatg aatgtgacat ttaactcctt 180 gaacttettg etectetgaa gacatgaggt getateactg gattteteta agtaagaata 240 gcagaagtcg ttttaaaaaa atactgcaga tagtttttct ttccaaattt tatgaaaata 300 ggtataggaa agaaaatctg aatgtccttg gtgtcagtat ccatctgctc catgcatcca 360 ggcagggctt ctttccattc ccaaagaggg gggcagtctg cctaacaggg ccattgctac 420 ccaactgtgg gagcccagct cttanactga gggaaggtct gaacaattgg nggttcgtgg 480 tgaaaatatc accctatcat aaaaccaaaa tgcngatgag acccancntt cataccttta 540 taaacccttc taccttaact tacctcggac cntttgnanc tctn 584

<210> 5875

⟨211⟩ 668

<212> DNA

<213> Homo sapiens

<400> 5875

agaggtattc aaaaaattta ttgaaagcac tgtactagga gctgagaaca cgatgatgag 60 cacaacacag ttcttccctt tggaaacata gataagtgga gggaatgtca tcacaaatgt aaaacttcac tatgagatga gttccgtgat aggattttct tagggaaacc tgagaaagag 180 ttgagactaa aggtatgtgt catatttttc acaaggcaaa actgggggaa tgacatatac 240 agaggettgg getagaaaaa agatacegtt agtecaetta ettttgagae agttttgget 300 gctttccctc ttcagtgccc tgttttagaa ctgagtcctt actgaggctt gtaagatggc 360 tattatggga ggtgagagtg ttacaaaatg aggctgaaga ggtaggtaaa gaagccagac 420 cacttcaggc tccctctggc tttattaaag caagataaat ccatggtgga aaatcagatt 480 tgcaagaaaa ggtagttgaa ctaggttgct taattggtgn ctagacaaga gaccagcttg 540 gactaagtaa aantagtgaa ataagatcgg ttataggtgg atgacagagc cnacntagac 600 gtggtaatan agggagggc cctaactggt aggngtcagc ttgccactgn tgagcataat 660 668 gccctagn

<210> 5876

<211> 646

<212> DNA

<213≯ Homo sapiens

<400> 5876

| aggaaaacat | gttctttaat | aaacataaga | gatagtcaag | tctaaataaa | ataataatga | 60 [′] |
|------------|------------|------------|------------|------------|------------|-----------------|
| taataataac | agattctaca | ccacagttgt | atacacttcc | agtgaagctt | tatgcattcc | 120 |
| attctgagct | cctaatacca | ggtaaacacg | aatcataggt | ggaaatatgc | catgtttagc | 180 |
| actagaagta | acatcacagt | ttattagcaa | aataaagcag | aaaatgatca | aaatgatcag | 240 |
| gtaaataaat | attacaacat | ataatgtact | ggtgatgaag | ctgcaataaa | gtaatataag | 300 |
| tgatgtttac | aattttttt | ttttttttt | ttttttttt | actgggaagg | ctagttgtaa | 360 |
| acataaacat | tctcactgaa | ctactggccc | cccaaaacct | aacctatctc | acaatcaata | 420 |
| atcatctttt | gctataaaat | cataaaaact | tgnactctgg | ggctcttttg | nctgggacag | 480 |
| cttttctact | ttctgacatc | tnttgaagtc | tttcttctca | aacttcaagc | tcaggcttta | 540 |
| tctcctgcca | aaacctttcc | tgangctttc | aggttctgtt | aaaaccnggt | tctttctttt | 600 |
| ttttttttg | aaacggagnn | tcctntgtgn | ccagctggng | ggcagg | | 646 |

<210> 5877

<211> 644

<212> DNA

<213> Homo sapiens

<400> 5877

| 8 | igagcctaag | ggcctgtatt | ttaatgagaa | aaaaaaaatt | tccaacatag | ttcgggtagc | 60 |
|---|------------|------------|------------|------------|------------|------------|-----|
| t | ttgaatggt | ctagtcaaaa | aatacttttg | gtatataaaa | agcctgtacg | tacaattcac | 120 |
| 8 | cctcagtga | agcgccctcc | ttgccttgag | gctgggcctg | ggacaaaggt | ggcctcacag | 180 |
| C | cagcccagg | cagggagatc | ggcagagagg | ggtggcccct | gaccccagct | cctctgcccc | 240 |
| 8 | gctgctgct | ccttggtggc | ggcccctcct | gacaccaggc | gtctgccatc | cttcaggcac | 300 |
| c | aaacagccc | cgtctacctg | gccctggtct | gccctcacac | cagtccaccc | ccagccccaa | 360 |

ccccaaccac cctccgctgc acggcctcca gcacctgact ccattcaggg aactgaattt 420
gagcttgcag gggtgagaac cacactgagc agcatgacag gctgtgagat cggaggagaa 480
gagtatatgc tgaggctntc ccagttgtca cttggcttan gggtcctggt gcccgtggnn 540
ccgcagtcca gccacagtgc tggcctgaca aatcagcctt aggtgactgg aacaggaagc 600
ggaaccccaa ggnggccaac aaaacggttc tggaggatac ccct 644

<210> 5878

⟨211⟩ 613

<212> DNA

<213> Homo sapiens

<400> 5878

ctgaacgaat tggttaattt atttggtaaa taaaacaacc atttctaata tgacactgaa 60 120 atgataacat tgnccatttt ttcaaagcac tgacatacaa aagtgaaaag atncaacagn 180 gcacattttc agggtaccta tgtttactga agtctaaaaa ctcctccacc tttaaaagtc 240 agcattattt cttgatggaa gaaaaataca cagtaacttt ttgatgtaat actaatatta 300 tngggttttc tttgcaaatt cctttagttc aagtattact aaagaaacat aaacatatgg 360 acattacaaa ttcagctaaa aaactaggta gtgctgacta tcctgtttaa tggtaatata 420 tgtattaggt atttaaattt gattattata ncacaaaata attttaacat ggaattctat 480 aaagnatgta ttttgtcact ctacagtgcc tgctnttcca tgggtttttt ttaagangtt 540 catcaattta cccaatttgg ncatanctgt accaccggaa tngggcctnt aacccaaaat 600 ttncgtaaag gct 613

<210> 5879

<211> 596

<212> DNA

<213> Homo sapiens

<400> 5879

aactttttaa ttcattttca ttttaaattg ctcatgctaa tgaacacagt agtatggctt 60 tacagatttc ctagacacaa tcctcaattt ggctcagact tgaatatacg tcatccaaga 120 gaactttttc gttccttctt aaggtgttta aaaaataaat ggctataaag tatggggaga 180 aaacatttaa gaataaggtc agagcacaca ttcagataca ctttggactc agatgtactc 240 ttagagaact gtagagataa aatgctaatt atagtacatg taaacatctg ttcaaattga 300 360 taaagagtga acataaaata ataggatgat attattgtaa cagtcgtctc cagacaggaa 420 ctggtcttgc tcttgcagtc acaaagctaa attcaggcaa tgatgatctc tctctgctgg aaaaagagaa gactattaaa aaaaactttg aaaatagcaa ataaatctaa acttgaatca 480 catcataaat ggcctccact tttctaacca ttaaaaaangc tattggagaa agaatcaaaa 540 tcaaagtgca ggaaantacc caangntttg gctaaaanga tttaccaaac ctnttn 596

<210> 5880

<211> 653

<212> DNA

<213> Homo sapiens

<400> 5880

attggagcag gtttgaagag aagcatggac agtattaatg acaaggccac taaagacctc 60 tgaccaccac taagttcagt taggttttct ttccaggtat ttcccaaggc aaccttgaac 120 tecagaceat ecaaaacagt ttgaceetet ggtggtgcaa gcatageatt ageaceagge 180 aaaagagtag aaaaaataga cccaaagtcc ttgttcacct tttgccatgc aatatttagg 240 300 gcttggtttt tcttctggtc aaggtcttct atagttgtaa gaattttgga tttgtcattt tctacaattc tcttcttctt catcaagtca ttgtatcgct cttcagcttc tgtcaataca 360 ttcatagete teatattgae atttetteet agttteteet teatttettg caacttetga 420 agtctctgac cagcttcttt aagggttgta gttttgaaat cataggcact aattgggtgg 480 cccaaagagg gtctctctgc atcaaatcca gtcataatct tttcaacatt tnggatcctt 540 gcagcaccat ctttaagcct cccgttanng ttgcctnatg tggggccnaa ttccttattt 600 653 taaccggaaa ccntggttgg gccctggggt ttgcccttng gaaataagtt taa

| <210> | 5881 | |
|-------|------|---------|
| <211> | 645 | |
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 5881

aatagacatg gtctcaatac gttgcccagg ctggtctcta actcctagct tcaatcaatc 60 ctcctgactt gtcttcccta agtgctggga ttacaggtgt gagccactgt gcctggtctc 120 acttttccaa ttctaaagaa tgtgttgtgt aagccttccc ctcaacaact tagtgaaagg 180 240 tgaaaaaaag gtttggaaat aaaagcatct gatgtttgaa aaagtacttt gtgaagtaaa 300 tgcactaaga gttatctgtg tattactgca aacaggtgaa catagtaaaa acaaatgaac ttactgcaag tagctcaaca tagtaaaaac aatagaaatg tttggcttta cccatcagcc 360 aaataaaaaa atctccttgt aaggttaaaa ggatcgaaat gtaggaagac cgtgaatatt 420 caccaaaacc cttcatcttt tcaatttctt catctgtttc tgggctgctc attttggatg 480 ctttaacttg gttactacta ccagtatctg ctttaanata gtttggcttg ggtatctaac 540 aacccgagac tettgaattg geatetgeat etaagtetaa nggtttatge ttaatgattt 600 gnggggacta actggactac ttcangaatn cagngggtct accat 645

<210> 5882

⟨211⟩ 540

<212> DNA

<213> Homo sapiens

<400> 5882

aagtattgaa tagagagaat cactcactac ccaataaatc ccagggtggg taagatattt 60 cccattttca gatgagggta ctaagggtca gaaggatgga ggcccagccc aatgctactg 120 acacagctag gattcagtat tgggtagaga atctctatcc agtacttaag ggttgtcaaa 180 aaaaacagca tatgaaaaag aatgcctgct ggagaaggaa gacaacacaa cagaaagcag 240

agatggaga gagttcaatt cttgaactcc tggcctgaag tgatcctccc acctcagcct 300 gagagttgaa ttctgatgac attgtttgaa cccctagatc cagctttacc tgaagctaaa 360 tgcgctacta aacttctcag tttaaaaagc ctataaatcc tgctgnttga gtcaatttct 420 tatttgcaac tatgntctat tcaattcaaa gccttagggc tnancccagt taaactgctt 480 ctacanttct ggtggatctt tngactnatg aaacctaatc tttcgnttta ccacngtcca 540

<210> 5883

<211> 479

<212> DNA

<213> Homo sapiens

<400> 5883

gctgtgaaaa tactctgttt attaaagacc aggcggaggg aggtaaggtt gtgggttctg 60 120 tatgggaaac tgagtcccag ccccagggaa ggagaaggag gacggaccag ctggcagccc gcgagaggtc acaggtcagt ggccggaccc cagtcatagc cgtcttcatc ggaggactcc 180 gcatcatgga ctcgcgtaaa ctttttcttc agggcttccc gttcataggt tcgcatgctg 240 tectgtegee actgteetg ggggtggegg etgteeacet gggeeecetg atgageegag 300 atteteccae gatecetegg getetgggae teatetgeet geaegggete egaggaeegg 360 ccagggctgg acccgggggc tcatcatcan atccgtgtag ggcccccctt gccgctgtgt 420 accettgena teegtgtace eneegeettg eegeeggntt gnaanneett gtaacceeg 479

<210> 5884

<211> 429

<212> DNA

<213> Homo sapiens

<400> 5884 °

actaaaacag aaagactttc aggaaaatgt catttaatga tttcagctat acattacata 60 tacaactctg tagcctagca acaatcattg ctacaccatc attaacttta aatattttgc 120

ttggtgagct attctcaaat gtagcacatt ttaagatttt gccatcatta tgactgtga 180 atcattgttt ggttttcata ggaaacagat ctgtcacagt atgaagcttt gtttatttta 240 agaaactggt acacaattac atttccactt acaagagaac gccacagata taactaaagg 300 caggcttcga tggctccnca aaggttgcgt gcgggaccaa ccccacacct cctngnttcc 360 ccgtcgaacc gccntgncca ggttnacatg gtttcatttc cagagatgct ttgnttttcg 420 naagttagg

<210> 5885

⟨211⟩ 632

<212> DNA

<213> Homo sapiens

<400> 5885

caaccaccaa agetgtaact tttatttgcc aatagatatt ttaataaaca ggettactcc 60 gtaatttgta ccttgtacaa aaatcttatt atgttgctca gcaggtagtt tgctaaacag 180 catattettt cagcaaatag atgacatatg ttatgcaatt caccacaaac aacccetcat 240 attgagaget gageatteta taacactatt aacttgtaag catgecagea catgaaaatt 300 tacatggaaa gttattaata ttatagtaga tttttgtaag ataaaaatag taccaccttc 360 aaataagtet ggactaette aetgetatag taaagtagat aataggtagg attgeagtte 420 aattgttaac acctttttac cttgtttata gctctaccat attgngatta taaccagaaa 480 540 agagaatgta ngctgtgtca ggaacctgag tggaaggcat atattgaagc tttaaatggt gacagaatac taangagaaa accttaaaca gngctatact tcctatctca tagataaatc 600 ttttnccctt tgnaagacca atgggncaga gt 632

<210> 5886

<211> 494

<212> DNA

<213> Homo sapiens

<400> 5886

gagatggagt tttactctta tagttcaagt ctggagtgtg atggcagtga tctcaactca 60 ctgcaatctc cgcctcccgg gttcaagcga ttctcctgcc tcagcctccc aagttgaatt 120 acaggagece acegacaege eggetaattt tttgnatttt taatagagae tgggtgaeag 180 240 atcaccggct ctgtgctcag caaacttcat cacaacggga ctgatgtgga tcagagtgat 300 gaccacttca cggatgagac acttcactcc ccgcctgcct cccagatgct aaggagggat 360 420 aatccaagtc tcagccttcg acagtccttc cttccagacg gcnngggntg gtttttctct aagtgetttg ceatteaaga genaceaace ceaceanetg gentggaeta agagggaaat 480 494 tanttttttg gaac

<210> 5887

<211> 448

<212> DNA

<213> Homo sapiens

<400> 5887

| atcttgatat | tgnttattgn | ttacggttat | gacacattat | atatatacac | acacacacat | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| atgtatatag | ttacgtacac | acacaccaat | ggcactgatt | ttggtacaca | tcagaattac | 120 |
| ttaagagagt | ttgttaaaaa | tggagattct | ggagccccac | tctgtgagtc | tggacgatag | 180 |
| gtcctacatt | tttaaatgcc | cctgcctgcc | cccaaggtgt | ttttatacag | atggtagact | 240 |
| cactctgaaa | aacactagaa | catacattct | taaaatatca | aacattgaat | tctgggtatg | 300 |
| atcattcttt | tttggtcagg | gacaagaaaa | aaactgtcaa | agacaactga | gattttgagt | 360 |
| ccaggtagcc | cggaggaggg | aaaagtaata | cttacaaaaa | taaggnctgg | aatgaaaaag | 420 |
| ggagaagnnn | ggataccnan | nggttttt | | - | • | 448 |

<210> 5888

<211> 540

<212> DNA

<213> Homo sapiens

<400> 5888

aggataatta aaactacttt gaatttttta tttatcaatc tggtttctaa tataatttta 60 gttaaatgaa agacattcac aaagaatatt aggcatacgt acataatttc cttctttcat 120 tctagtttac atgctgttgc ttttagagag tgaaattttg tgttatttca caggggatgg 180 aatcctgttt gactttacag aaagaatatt tagcccagct tttcacagca ctaacctctg 240 300 cagtcaccac gctcactgaa aaaatttaaa aaacctgaca aaataaaact tagtaaaatc tagaaacttg aattcaattt aataattgct gccctttttt tgggaaaatt gctcaacagg 360 420 gtggtgaaaa gaaaaaatgg ggggtttcaa attcagtgtt gnttggaggc atgagacata aacggccatt aaaacgttta ctgcgtaaga acnaggtata atggggngag gaaaaggaga 480 aagaaaaaag gtngattgaa aagaacngat ttcntccttg aanggaagna aagctttttg 540

<210> 5889

<211> 570

<212> DNA

<213> Homo sapiens

<400> 5889

60 120 tcctgcaagc aaaatggagg aaaaggtatt attgttgtta ctatgattat taagccacag 180 acacataaaa tccacaaaat ggattggtgg ctttggaaat gcaataccgt atcaaaggtg cagactgttt caaatgttct ctacatattg ggctgaaaca agaaccaaac caaacttcaa 240 ccccatcage gacgeaatge teetgtgace ttggtgaaaa categtegtg accagetaga 300 360 tccaggaatc cttctctaga gacacgtgga aacgtcccat caggtaggtc ctcaagtcca aggtggggtt gaagggctct ggcttgtccc agggcaaagc acgtgcatta ttggaccaat 420 480 ttctgaatag aattttatta atatgtcnaa tcaattccag gcacttgaaa tggctttggc 540 tggaataacc caacatngca agaatatgga ttcacagagc attcagccca agctgggttc

| ancangcaag | ggntatnggt | ccttnangct | | | | 570 |
|------------|------------|------------|------------|------------|------------|-----|
| | | | | | | |
| <210> 5890 | , | · | | | | |
| ⟨211⟩ 485 | | • | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | • | | |
| <400> 5890 | | | - | | | |
| cttctcctta | gagggggttt | tgccctcctt | accttcctca | ctgctctcct | tgggtccggc | 60 |
| ctcctccagc | cccagcccga | agaggtccga | gtcattcttc | agtctgaagg | cggggagagg | 120 |
| gagcttgggg | ggtgggggcg | gctcggcagg | gccctcatcc | tcgtcagtca | catcggaggg | 180 |
| gtcatctcgc | acgggaaagt | catccgccct | gcgctgtgtg | tctgatccct | cgccctcaaa | 240 |
| gtcggggtca | tccatgacga | aggacagcat | ttgtgcagca | atgggtccct | cggggtcact | 300 |
| ctccgacgag | gaggcctgnt | accettecee | ggntccatct | nagcaggggg | cctggtgctg | 360 |
| ctgcgctttt | ccggacctgt | gcgaacagag | acaccgcctg | gccagggggg | tcctgcggcc | 420 |
| ctcgnggaag | ctgcccctc | cgnggtttaa | aactggtntg | gaggaccact | tggctntggn | 480 |
| tntna | | | | | | 485 |
| , | | | • | | , | |
| <210> 5891 | • | · | | | | |
| <211> 572 | | | • | | | |
| <212> DNA | | | | | • | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5891 | | | • | | | |
| gagacagaga | ctcgcccagt | tgcctagact | agagtgcagt | ggtgcaatca | cagctcagtg | 60 |
| caccctcgac | ctcctgggct | caggtgatcc | tcccacctct | gcctcccaag | tagctgggac | 120 |
| tacaggcatg | caccacgacg | cccagctagt | ttttgtattt | ttagtagaaa | caggattttg | 180 |
| tcatgttgcc | cagtctggtt | tccaactact | gagctcaagc | catacgcctc | cctcagcctc | 240 |
| ctaaagtgct | ggggttacag | gtgtgagcca | ccacacccag | ctcattttaa | tctgtttaag | 300 |

| gattaaaata | ctcccaactt | caggtatgtt | ataaatgaag | aagtccattt | ttcttctatc | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| ccacataact | ccctcaaaaa | aaggaaagta | aaatgaggaa | aaagatataa | gtanaaaaga | 420 |
| aaaatgggct | ttaaggggaa | tacataggga | gccatttata | tagctctggt | tgacaataag | 480 |
| gtggggagaa | atncctagaa | gctaattnta | ggggaaaaga | tgnaaatggg | ggnnatggcc | 540 |
| actggnntgg | gttggctctg | ggttccacca | aa | | | 572 |

<210> 5892

<211> 579

<212> DNA

<213> Homo sapiens

<400> 5892

| ctttttttt | tgagatgaag | tctcgctctt | gttgcccagg | ctggagtgca | gtggtgcgaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| cttggctcac | tgcaacctcc | gcctcccggg | ttcaagcgat | tctcctgcct | cagccttcca | 120 |
| agtagctggg | attacaggcg | cacaccacca | cgcccagcta | atttctgtat | ttttagtaga | 180 |
| gacagggttt | caccatgttg | gccaggctgg | tctcgaactc | ctgatctccg | gagatctgcc | 240 |
| cgcctcggcc | tcccaaagtg | ctgggattac | aggcgtgagc | caccacgctt | ggctggggca | 300 |
| gcttttcttt | aatacacaaa | ctgaggaaat | gaccctgcaa | atttcagggc | ttagaaagcc | 360 |
| ttcatacgga | atcacagatg | aaatgcttct | tgggaaattc | acatgacaca | gngccacgtc | 420 |
| atacctgctc | tgcagggcct | catgggggtg | atgtacacac | agcgcccctc | cgagctctgc | 480 |
| agcagcattc | caggatggca | aactntgcca | aatagttttc | cgttgccggg | gggccccaaa | 540 |
| aacacnttgg | nncnctgggg | atacagggta | aacctggnn | | | 579 |

<210> 5893

<211> 595

<212> DNA

<213> Homo sapiens

<400> 5893

aagtatgaaa ataccatggc tttatttttc tcttaaaaag atagccgtgc ttatgagcta 60 aatggaaagg atgtatgtca ttctcatcag taaacaagat ttaactgctt tcagatgcaa 120 accataatgc cgaagaagtg acatgaaggg gataaaagtc taatgctttc atcttcacag 180 caatcaaatg caaagtaaag caaaaatgaa atggacttaa ttaatgctgg gcattcccac 240 300 agggaaaacg caagaggata ttataacaat cagtagcagt attgtataca atttaaaaat tccattaggt tgagccaccc tcactcctct ctctggctct ctcccatctg aggtatagca 360 ggctggaact aacagaagct agtaagtcng gagccttttg cntttggagt ccactgagat 420 aagtgagtgg gcaaagtett ggaagaccag ataatetgge tetggtgagg cacctacgtg 480 cacantgtcc cattatggaa gttgacaaca tactcagcat tagtcctntg cccagaaatn 540 595 ncgaaaggct caaaagggtg aaaggtgaag gcnccaaggg gnncncctgg gggtt

<210> 5894

<211> 542

<212> DNA

<213> Homo sapiens

<400> 5894

aaaatgacgg aaatttatte teteacagtt etggaageea gaagteagae ateageatea 60 ctgggtcaaa ctcaaggtgt cagcaacact gagctttctc aggaggctat agggtagact 120 ctgtgtcttg cctcttctgc tttctgctga ctgctggcat tccttggctt gtggccatgc 180 240 cactttagtt ttcaaggcca gcatcttcag ttgtttctct gctccgtcgt catatgacct ctgatatggt ttgggtccgt gtccccaccc aaatctcatc tcaaattgta atccccataa 300 360 tccccactg tcaagggagg gatgaggtgg aaggtgattg gatcatgggg gcggtgtccc 420 tcatgctgtt ttcatgatag tgagtgagtt ctcacaagct ctgatggttt tataaggcaa 480 gtttttcctc tctctctc tctctctc tctctctct tctctcgcct gctgccatgt aaagacatge etgettneee ttetgneatg aatggnangt teatganget tteeanneea 540 542 tg

<210> 5895

<211> 481
<212> DNA
<213> Homo sapiens

<400> 5895

gtggaaacaa ggatcttgcc caggctgttc tcaaactcct ggcctcaagt gatcctcctg 60 cctcagcttc cttaagaacc aacattcttt agggattggg ggcaaagttt ttttaaagga 120 atataatgtc caagttattt tgntataata gtctgatctg tatttccagn cttccatcta 180 gtattttata ttaagatcat gccccacac acatctactg tatgtttcct taagttctag 240 attcaggaaa actaaattac aaaaaaatca aaatagtgct ctgactctgg agggaagggc 300 360 agagttgact ggcaacaagg gaactttgag gtaagagtaa tgttgtatac cttgatcaga 420 gagtggaatt gtctgtgtat acacttaaaa tgnatggggt tgcccggcgt ggtggctcac gcctgnaanc ccagcacttt gggaggccca tgtggcanat caccagggca nganatcang 480 481

<210> 5896

<211> 468

<212> DNA

<213> Homo sapiens

<400> 5896

60 gagatgtagt cttgctctgt cacccaggct ggacatggtg gtttatacca agttcctgta 120 aacaggttta aagtatcaaa tgcttacaaa tgaattttta aaatatgaaa attagagaaa 180 atgaaaagtt attcctgtaa taacttgcct ttttcacttg tattttcata tgctttagtc 240 agaaaaggct agtgaagcat ccaatgcaca ggggatgcat gtaaaggact gtgaaccact 300 attcagaata gtctcctaaa cacacaaca ttatccatga acacacagcg gtctaaaatc 360 caggitgatt tetaatactg teactigetg actgggeatt etaaggeatt tiaaattiat 420 acggtttagg ttccacaata taattaacct attcaggtta actatattat attctcaata 468 atacttttt ttttttttt ttgagangaa ancttgntnt gnncccan

| <210> 5897 | | | | | | |
|------------|------------|------------|------------|------------|------------|---------|
| <211> 567 | | | | | • | |
| <212> DNA | | | | ٠ | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5897 | | | | - | | |
| aacagcttgt | actttattac | atatgcaacc | ttgccatgcc | tgccagttaa | ctccctccc | 60 : |
| gccaatgtta | tcctcatgat | atcagctccc | tcttggggcc | actgagctgc | cccctttcc | 120 |
| ttctgggctg | gagtagtggt | gccctcaag | caggcaatgg | gcagggtgag | gtgggcataa | 180 |
| ccctcaggtg | acacctggca | gcccccagc | ggatccccc | gtgcagcatc | aaagccagct | 240 |
| gagaccagca | ccagttttgg | gttaaactcg | taggcaatgg | gaagcaccag | gcgatgccag | 300 |
| gcagctaggt | agtcagcatc | acccatgcgg | ggcccgttcc | atgccacgtt | gacggtgaag | 360 |
| cctgtgcccg | cagcccggcc | gatctggctg | ctggaccctc | atccccatgg | ggaaagaagg | 420 |
| tgccatgatc | atagcggtgc | anggacacat | atagcacact | tggggtcatc | ctcaacatgt | 480 |
| gctgagttcc | attaccgggg | tggacattcc | aatccacaat | caggatccga | aggcatgcca | 540 |
| ctgatagctg | ggcattggca | acancct | | | | 567 |
| • | | | | | | |
| <210> 5898 | | | | · | | |
| <211> 563 | | | • 10 | | • | |
| <212> DNA | | • | | | | |
| <213> Homo | sapiens | | | | | |
| | | * | | | | |
| <400> 5898 | | | • | | | |
| gcactatata | gatcagagtt | tttacggcaa | tttttccaaa | aggccagagg | agtttttaaa | 60 |
| ttctggtatt | ataattttt | tggtctcttc | caatttaaat | aatctgtttc | taggcaaaac | 120 |
| agtgtgatga | agagtaaaat | gtccctgaat | gaagaccacc | atgtggcccc | tctgctgtcc | 180 |
| ttatacctcg | gcagtctgcg | atctccaatc | ataagccaac | agcatgatgc | ctggggctgc | 240 |

ggtgcccaca gcacgcggc tagaagaagc tctcagcttt gatttagtgc tccctgaacc 300

| aaccaacctt | ctttcaagct | gcttttcatg | agaaagttca | gtccagagca | tcagccacag | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| ctgctccttc | tagcccatat | tgttcaccag | gaaaagaaaa | cctatttaga | gccaaagaac | 420 |
| acacaggtga | agcagaacac | caaattgctt | ttggcaggaa | acaccactgg | agaagtcaag | 480 |
| aaatctaaat | tatgttgagg | ccctgaagac | aaggacactg | gagnettaca | gacggaggac | 540 |
| ctgnacttag | gaaagcacct | gtg | | | | 563 |

<210> 5899

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5899

| gaaagaaaaa | ctatttattt | ctttatacac | atcttgctta | aacaatcacc | aaaaagactt | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tcattttctg | tcacccaccc | tgtccaccag | ttatgttggc | cttcaatatg | tggcgttagc | 120 |
| aacatatata | aatctatatc | atatatttat | acacacaaac | acattctacc | agcactgtga | 180 |
| agacacagac | taggctttac | taggcttggg | gcctctccca | tgccacttaa | aaatgagcac | 240 |
| aggtttgctc | tatgcaagaa | tttcaacaga | gttggtctgg | ccatcagtct | gcaatttccc | 300 |
| cgagataaga | tagggtgaca | aaatgggaca | gcaactttga | agtgaggtca | gtccaatttg | 360 |
| gatatcatag | aagaaaagaa | ataggatgtg | ctaggttaag | cctgagatgg | tatctgggaa | 420 |
| atcacccatt | catgatgtga | actcaaagac | acangtgcta | cagtggcaga | cccaagccca | 480 |
| acctgctnga | ccacangggc | aagtgtggac | tgggaatant | ggtactgggn | ccccccnaa | 540 |
| atgtccggan | gggacct | | | | • | 557 |

<210> 5900

<211> 545

<212> DNA

<213> Homo sapiens

<400> 5900

| gcttgtaaat | tgtgctttaa | tttctgcaat | cagatatgat | gcagtgagat | açaagtataa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| actttcattg | tgcatccaga | aaataaaaag | cacaagtata | caggtttagc | tcaacagctt | 120 |
| attcccttat | aaagaaaaaa | aaagttttga | attaaagcta | gtttatcttc | agtgtaaaaa | 180 |
| cttggaggta | taaacaaact | caagatatta | tatacagtaa | attaatttac | atttccaaac | 240 |
| ttgcacagta | cagcatttta | aacaaagtaa | atggtctcat | ttcagctctc | actgttaagc | 300 |
| ataatccaca | tcccaatctc | agataaaaat | ttcacaatat | ataaatccat | tgagaattct | 360 |
| gtacacaaat | acgagttata | gaaatctgat | ttcaaatata | aatacaaaaa | ttgtcatgac | 420 |
| cttacacgtt | acaacagctt | atttttctat | tggaatttta | aaaaatcata | gaaaaatatg | 480 |
| tcaatgcaca | ttcactgnta | tgaccaangg | catgaacctt | gggnctttna | ancatccttt | 540 |
| nanaa | | | | | | 545 |

<210> 5901

<211> 167

<212> DNA

<213> Homo sapiens

<400> 5901

| aaagttttca | gactttattt | cacagcgatt | gacacagaaa | catactagag | ttagtaacac | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ggcacccagc | cccaccgccg | cccgcttcat | cgggtcctgc | tcctaggagg | actgggctgg | 120 |
| ggctgggggt | ggggatggga | tgggggtggg | gaagggacgg | nnnnnn | | 167 |

<210> 5902

<211> 530

<212> DNA

<213> Homo sapiens

<400> 5902

ctttttagag acggagtett getetttge ecaggeegga etgtagtgge getatettgg 60 etcaetgeaa acteegeete eeggttatg ecatteteet geeteageet ecegagtage 120

tgggactaca ggcgcccgcc actgcgcccg gctaattttt ttgtatttcc agtagagacg 180 gggtttcacc gtgttagcca agatggtctc gacctcctga cctcgtgatc tgcccgcctc 240 ggcctcccaa tgtgctggga ttacaggcat gagccacccc acccagaaat ctctttatgt 300 ttaagaagag gaaagtgaag aacggaaagg gaagaaactg cccatcctca tgggtaactg 360 agaggaggga tggggagaa gacttccctc tttcacttcc tattttttc tagctcccag 420 ctnttcccac tggcctcatc tggttcattt ggttcaaggt ctaatgatgc attttgctgg 480 gncttttcca attcttaatc ntgtaaggnn ggaggnaaaa gngtgagtnc 530

<210> 5903

<211> 551

<212> DNA

<213> Homo sapiens

<400> 5903

aacagtcttt atgggcttaa atgtagtaga tatcacctgt gcatcaagca ttacacttca 60 ttcctttaag atgtgcttca tcctcactca agctgcttgc caccctccga tttctggtcc 120 agtetactet tgttactett caccatgtag atgaagtagg caagggtete tttttcatte 180 acaggtatgt teetgaagtg tegacteaca gtttetgeta aetgggeett attgaageet 240 ggtctggtct gcaacttgta gtgtcgttta taacgtcgta gggtgttcac ctgcagctgg 300 360 aacagatcaa cctcaggaat gtcagtgtcg tgctcgggag aatctccgcc atcgtcactt 420 gtcttcctct tccttttatt tcggacactc tggatgaaat ttttgtgaaa atcacagata tataggtgcc ttacgctctt gccgatgtcc agcttgagtt cttctgcgag atgctctttg 480 540 gaccetettg etgaaggaag egttgeeeg nggeeggaeg eanngettgg eegnnetega 551 tgaaggaana n

<210> 5904

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5904

ccgagacaga gtcttgttct gttgcccaga gctggggtgc aatggcgcga tctcggctca 60 ctgcaacctc cgcctcccgg gttcaagcag ttctcctgcc tcagcctcct gactagctgg 120 gattacagge getgecacca tgeteggeta attttttat ttttagtaga gaeggggttt 180 caccatgttg gccaggctgg tctcgaactc ctgacctcgt gatccacccg tctcagcctc 240 ccaaagtgct gggattacag gagtatatga atgcttttat ccacaccact aagaagagaa 300 ttgaacatgt tttgaaaaca caagaggaaa ggcagaaact tcattacaaa tattctaagc 360 agtttctgac tttgtttcaa gattggaaca cgaacagtga aggctgagga accagaggaa 420 caaaaactag ctacaatgtt tcgagagcaa caaaagagtt gnctataagc tanaatgggt 480. taaaagacng agaccctgga accaattaaa ctggaatcag caatttctac ggggttggag 540 gacttnaana gaattnnaat tett 564

<210> 5905

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5905

| gagatggagt | ctggctcaat | cgcccagact | ggggtgcagt | agggcaatct | cggctcactg | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| taacctccac | ctcccaggtt | aaagcaattc | tccacctcag | cctctcgagt | agctgggact | 120 |
| acaggtatag | tctgtatacc | tgagattaca | ggcgcccacc | atcatgccag | gctaattttt | 180 |
| gtatttttag | tagagacaca | gtttcaccat | gttggccagg | ctggtctcga | actcccaact | 240 |
| ttcagtgatc | cacccatctc | ggcctccaaa | ggtgctgggg | ttataggtgt | gagccactgc | 300 |
| acccggccag | ctcatttctt | tttggtgctg | attgatttcg | tttgtgtcac | actggctggc | 360 |
| tggtagaatt | caccagtaca | accatctggg | tctgctgtct | agaagctgnt | ttaagtttat | 420 |
| atgggtattt | caagggaact | agnctatttt | atctaattta | tcaaatatgt | gagtgagagc | 480 |
| ttatttatct | attctcttac | taatccngga | tttaatccat | gggattagcn | gaatacccct | 540 |
| ntttattccn | aaatnggcaa | t | | | | 561 |

<210> 5906 <211> 587 <212> DNA <213> Homo sapiens <400> 5906 teggeecaga aggagacatg gettgettgg etggetetaa aggettggat ecateteett 60 tgaaaagaaa actcgatttt tctttttttg ggcctggtgt gtctattagc acattttcga 120 cttattttgg gagatgetet cattteetgt teatetttea gtggtgettt tecaatgeta 180 aaatgaactt tatttgaacc ttcatccaca ctcttaaatt cactgctgtc atcgcaggtg 240 300 ctgtctgtta gactatttgt ttttaaagta cttgaggtgc agacttcgac cacctcactg tggaggtttt cctgtaccac atggggagag ggagctctat tttcagatcc aggggaatct 360 420 gtagaateet tiggtactga tittiggtitt ggtgaegtig accgicetet caaaggitet gtgagggca ttttcttctt gcggagggta tctggatcaa gtgtgtaaga gtctgattta 480 540 gaacgttccc gangaggatc aagctttgnc ttaacaggag cagtactttt ttgangnaaa 587 attttatcat gtggtgaaga agaacctgga naactacncc cnatggc <210> 5907 <211> 565 <212> DNA <213> Homo sapiens <400> 5907 gtttttgttt tttctggtct aaatagaaaa agggaaaggg aaagtaaatt cttagggcca gacctcgaaa tgccccaagt gtccaattgg cagctatagc atttgtgagg aggttccttt 120 gccctcagac gagtagtttc aacatttcag tgaaaacaaa ggttgcagaa agctgaaaac 180

240

300

ccagatettg aaggttgetg teatatatgt gtttgtgttt ettatattat tteettttga

cttcagtttt gcatcccaaa tatgtatggg gtggcatttt aacagtcaat gagtcaaaca

gtcaaaggag gacaggagg gagccagctg gtaggagga gcagcaaccg tgtgtggacc 360
aagcgccatt tttgntttat agacgtgtct tgaagggatg gtcccagaat atacaaaata 420
tacaatctgn cctaataacc accccgcttg cttgcatang ccatttgatg gcctnaaggc 480
agctttggag ttgaaggcag tgncactact tggaatgccg gtagattgag acccttctgg 540
atgtgtnaat gtggcatgac cagta 565

<210> 5908

⟨211⟩ 551

<212> DNA

<213> Homo sapiens

<400> 5908

gaggtagggt ctcattctgt cgcccaggct agagtgcagt ggtgaaatct cagctccacc teccaggite aagegattet catgeaacat ecacetecca ggitegageg attgteatgt 120 ctcagcctcc caagtagctg gaattacaag tgcccaccac cacgcctggc taattttttg 180 tattttcagt agacacaggg tttcgctatg ttggccaggc tggtcttgaa ctcctggcct 240 caagtgatcc gcccacctcg gtctcccaaa gtgctgggat tacaggcatg agccactgtg 300 cctggccgaa cctctgcttt taaccccaat ggatttaagt agcatttaca agaggtagtc 360 tcaaactgac acgttttact ccaggataac cttcccaagt cccttgaggt tcccctacac 420 tggtgagtaa acaagctgta ccatggngcc ataaagaaat ggctttctac ccaangggac 480 ttaaattnga gagaaaaagn tncaaggctn accaaggatg tggaatattt ggacttntta 540 551 aataccgntg g

<210> 5909

<211> 567

<212> DNA

<213> Homo sapiens

<400> 5909

gagacagagt cttgctctgt cgcccaggct ggagtgcagt ggcgtggcat gatctcgggt 60 cactgcaacc tetgeeteac gggtteaage aatteteetg ceteageete etgagtaget 120 gagattacag gcacccacca ccacaccagg ctaatttttg tattttagta gagacggagt 180 ttcaccttgt tggtcaggct ggtctcgaac tcctgacctc aaatgatcca cctgccttgg 240 ccttgcaaag tgctgggatt gcaggagtga gccaccgtgc ccggcctgcc tactcatttt 300 cagccaaaaa attaaaacac accaacaagg gaatacagtt atttaatata tgggaaaaag 360 420 gggaagttat atgacagcaa tattctataa aggaataaaa acggaagaaa aggaaacatc tgaattggtt catttaagca gtctacactg nactaccatt tacaaggaaa acgcccaggt 480 540 gacaaacata ttccaagctg gggaagtcag actcttgttg aaagggccca gagtctatca 567 gtcctggnga ataagcaaaa aactaan

<210> 5910

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5910

60 cataacaagc attgtactat ataatactgc tcaggtaaaa gactgacttt tctaaagcgt aagtetaatt gtagtaetet ettettgaae etgtteeatg getttgaagt ttetageetg 120 180 agtaactgat cagtatccat cttgttttat ggcatggcta ctgtaccagg agagatacaa gtgagaagtt tgtgggctgt gtggaagtga agatgaccag gcccctcaaa aagaagggaa 240 300 gtggagatgc tcccactgga aactatgaaa aaggagaaca gaggctgtac tggggcacca 360 ggaagggaga atggaggctg agggcagtgg cagacaagaa agctcctgca actccagctt 420 agtcgttgca tgtgagatac actgttatgg cgtaggtgga aatcaattca tttacgcaac aaaagcaata gacataccag taatccttgc ccaaataaat tccttttcgt agtcaggaat 480 cataccatct ggatctacgc taggtcacta cctttaaaaa taattattaa tcncttaatt 540 tagatntaat ctgaaccaaa agtcggcn 568

<210> 5911

<211> 380 <212> DNA <213> Homo sapiens

<400> 5911

<210> 5912

<211> 570

<212> DNA

<213> Homo sapiens

<400> 5912

agcatgcaat tttttattgn tttctaaatc tatttgtaca cttaatatgc tagtattaat 60 ttcacaaaca gtataaagaa tgtactccaa tgatattacg cggcaacaac tcacctgaaa 120 aagaaaacat tgtctctgaa ataattccta attatacaat tttgcaaata agcactataa 180 atgttaaaat gttaagactt cagtgtataa tgtcaataac atcctgcctt tttaaaattg 240 300 tattacaaca ctcccattaa aatgaaaatc tatgttacga ctttatgctc ttcaaatacc 360 acaccagact gaagcatcaa ccagtatatc aagtgttctg ntccttaaaa aatcgctttg 420 gttatggggg agtgatagcc ttgcttatta attttcaaaa atcctgccta ggtatccttt 480 540 agcengaate atettecaat tacatgggen teaaaattae ettttaatea geaatteatt 570 gggnggctaa atggaaataa ttgcccagan

| <210> 5913 | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| <211> 564 | | | | | | |
| <212> DNA | | . • | | | | |
| <213> Homo | sapiens | | | • | | |
| | • | | | | | |
| <400> 5913 | | | | | | |
| ctaaaatggt | ctggtctctc | tgctgtaaga | gacgcttaag | tgacatcact | tcttctttca | 6 |
| attgacttat | aaggacaaaa | ttgtctgttc | ccccactatc | tgctgactga | tttatagagc | 12 |
| tgacagaaat | ggatgcaact | ggcaaattac | cttactaatg | gcacacatta | catacaccta | 18 |
| tctccattag | atggcttaga | ttccaatttg | ggctttttct | ttggagtttc | attctgaatt | 24 |
| gttgcagagg | atttatggct | ctgtttccac | agtccctgct | cttcttctgg | acttagattg | 30 |
| ctgattttgt | gatggctact | gctgtgacga | tggtgatggt | gatgatggtg | gtgatgatgt | 36 |
| tttggatgat | gctggtcttt | ctcagtaaga | gatgaagaag | atgaatttga | atgtgaagat | 42 |
| cccaggctct | tccttggtct | ttcgcttctg | taaactcttt | tgnaccataa | agtncagagc | 48 |
| ccgcataata | ccttncatna | ccttcttctt | ccttcctcct | tccaacaaaa | cncatggtgg | 54 |
| tgccctggtc | acaggtttga | gggg | | | | 56 |
| | | | | | | |
| <210> 5914 | | | | | | |
| <211> 572 | | | | | | |
| <212> DNA | | | | | • | |
| <213> Homo | sapiens | | | | | |
| | | | | | • | |
| <400> 5914 | | | | | | |
| aagacatggt | ctcactctgt | caccctggct | ggagtgcagt | ggtgcaatca | tggcttgcag | 6 |
| cagcctttac | ctcctgggct | caagcaatcc | tccacctcag | cctcccagta | gctaggacta | 12 |
| caagcgtatg | acaccaagcc | cagctaattt | ttaaattttt | tgtagagatg | gggtctcagt | 18 |
| atgttgtcca | ggctggtctt | gaacttctgg | ccccaagtga | tcctcctgcc | tcggcctccc | 24 |

aaagggctgt gattacaggc atgagccact gcactcgacc tgaaccaggt gttacatggt 300

aaactgtgac tggcgctgtc tgggtgggct gccctttggc tctcctgatt cttcagtaaa 360 atcttgcttt tgngatcaag tttggcttaa ctgggctgca ctgcaggcaa tggaanggct 420 gtcctggggc tgacaaagga agtggtggca gggactagca agaacgccat gaaaaagggc 480 attttcanag taagaactaa ggctggtacg tccacctgnt tttggggaaa tggntccaaa 540 agacctggtt aaaaaaanna ncnggtttcc at 572

<210> 5915

⟨211⟩ 582

<212> DNA

<213> Homo sapiens

<400> 5915

agcttgaaac aataaattta ttcccatagt tctggaggcc aggaagtcca atatcagttt 60 tatcggtatc tgtagggcca tgctcctgct ggaagaggct ctggggaaga atctgttctt 120 tgcctcctcc agcttctggt ggctgtcagc attcctttgc tgcggctcca tcactccaat 180 ctctgcctct gtggtcactg tgctttctcc tcttctgtgt ggtaatatct ccctttgctt 240 ctatataagc atagatgtag ctgcatttag ggcactccca gattacccag aataatctct 300 ccatctcaag actitaacti aatcatatct titgctatag aagagaacat ticcaggitc 360 cagggattgg gtatagggga tatcttttgg gaagcataat taagcctacc acaagttcct 420 aaaagtgttg aaatcatttc ttggngccaa gtaatnaaag ttggnggttt gnggtagaaa 480 acaaacctgg aaaagaaacc cccgggnaaa gtaattttaa aaaaggccgt tcaacaaaag 540 582 aaatggtnnn aaaaaagaan ttcataaagg gggattccaa na

<210> 5916

<211> 569

<212> DNA

<213> Homo sapiens

<400> 5916

gagatggagt ctcgctctgt cgcccaggct ggagggcagt ggcacagtct cggctcactg 60 caageteege eteeeggtt caegecatte teetgeetea geeteeeagg tagetgggae 120 tacaggcacc cgccaccaca cctggctaat tttttgtatt tttagtagag acggggtttc 180 accetgttag ceaggatggt etecatetee tgacettgeg atecgeetge eteggeetee 240 caaagtgctg ggattacagg cttgagccac cgcacccagc ctaatttttg tatttttagt 300 ggagacgggg tttcaccatt ttggtcgggc tggtcttgaa ctcctgaggc ctccatgagt 360 420 catctcgctg gcccctccat aaccagctca gtgtctgtgt gtgccaaaca ggcataggag cctgggtcgg cccaaagaca atctgcgtca cacactgtaa accaaanggt ccttggggcc 480 caagggctgg naacctggaa tcgcttatgg nggctgggaa tgatactggg gattctggac 540 569 tggttctgaa anatggttgg cacanggcn

<210> 5917

⟨211⟩ 569

<212> DNA

<213> Homo sapiens

<400> 5917

atttgacagt ctcactctgt catccaggct ggagtgcagt ggtgccattt cggcccactg 60 caacctcfac cttccaggtt caaatgattc tcctgcctca gcctcttcag tagctaggat 120 tacagtcaag tgccaccaca cctagccaat ttttgtattt ttagtaggga cggggtttca 180 catgttggc caggetggte teaaacteet gaceteaggt gateeteetg ceeeageete 240 ccaaagtgct gggattacag gtgtgagcca ctgcacccag ccgaaatctc catactattt 300 tctataatgg ctgcaccagt atgcgtttcc atcaacagtg tacaagagtt cccctggctg 360 ataaaagctg gaaacatctt gaatcaacaa cctaacatca caattaaaag aactagagaa 420 ccaaaagcaa acaaacccca aagctggcaa gaagacaaga aataaccnag atcagaagtg 480 gactgaagga gatcccgaac cgaaaaancc ttcaataaat caatgaatcc aggggtggct 540 569 ttttgnaaaa attantaang agctctttt

<210> 5918

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5918

gagatggagt ctcgctctgt gcccaggctg gagtgcagtg gcgacagagc gagacttcgt 60 ctcaaaacaa acaaacaacc tcactggtcc aggtgagcct cacctcaagc agttgtcaca 120 gcttgataat tgtgtgtttc tgagagggtt tctttggaag cctgccacag agagtggctg 180 ggggaatggg gggaaaatcc atctcccatt ctgagcccag atgtacctca acacccatgc 240 ctgcttccag gtgcccttgg ggggtccctc cccacagagt gcagggttct cacagcagtc 300 agtettgeag aggacetggg tagacatetg gteaceattg aaggggetgg ggeeaageea 360 ggcaggcagc cctgagccta agtgctactc agaggcaggc cccggagcat ggctggggga 420 tgtcactgac attccgggtn ctgcttggtg gggactttct ggcangactg naatgaagtt 480 gatcactctn aaggctgggt tgnttccttg aggccttggn taaaancccc aaatccggtt 540 caanaaggcc cagggaaggg a 561

<210> 5919

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5919

aatgttattt atttatttat ttatttgaga tggagtcttg ctctgttgcc caggccagag 60 cgcagtggcg cggtctcggc tcactgtaac ctccacctcc tgtgatctcc tgacggtgaa 120 ctcctgactt tgtgatccac ccgcctcggc ctcctaaagt ggtgggatta caagggagag 180 ccaccgcgcc cggtctttt attttgttt ttaaatgttt agtagagatg cagtctcgct 240 atgttgtcta ggctggtcct gaactcctga gctcaagcta tcttcctcc tcagccttcc 300 aaagtgttgg gattacaggg gtgagccacc gtgctcagct gctaaagact tttaaatcat 360 aaggaaaagg ataactgcag gaacatcatc aggaactcag acgcctggca aaggtaaacc 420

| acactgggtt | cttatgacag | aaacccttcn | tgattccttn | accaccccca | aatcttccct | 480 |
|------------------------|------------|------------|------------|------------|-------------|-----|
| ttggccagca | acctaagctt | naaaaaaagg | gactgccttn | ttactaccnt | gaagaaaggc | 540 |
| nctttgancc | nggattt | | | | | 557 |
| | | • | | | | |
| <210> 5920 | | | | | | |
| <211> 562 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | • | | 9 | |
| | | | , | | | |
| <400> 5920 | | | | | | |
| aagctctctt | atttgtcgcc | ttaccacatg | gacatcattt | tgcaactctt | tggccaaagc | 60 |
| cttcacaaat | gtggtgaact | cttctacttt | ttcattggct | aacagcaatg | tcttctgtgc | 120 |
| accttctagg | acctgttcac | tttgcaatgc | taattcttga | agctgcttan | atgctgctgt | 180 |
| ttcaatttct | gccattacag | attcagtctc | acttattctt | gatactagga | gagtaagctt. | 240 |
| gagatccttt | ttttctaact | cctctttaga | tttctgatac | atctgttcat | actgtgactt | 300 |
| ttcttttaca | gcaacgttaa | gtctttgctt | tagtgaatca | attgatacct | tcttgttgga | 360 |
| acattcttca | gttaatgnct | ttaccttttt | atcaagattt | tgnaacattt | cactaaaact | 420 |
| cttggtactt | tncaaattta | ctttctgtcg | aaanttcaag | gncctctatc | aaaggctttc | 480 |
| ataggtatat | ccctctcatt | cgagaaactt | ttcatgcatt | tccttanggg | gcctcntttg | 540 |
| caggagtcaa | atttnaagcc | tc | | ÷ . | | 562 |
| | | | | | | |
| <210> 5921 | | | • | | | |
| <211> 581 | | | | | | |
| <212> DNA | • | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | , | |
| <400> 5921 | | | | | | |
| acaaattgct | tactttattt | ctttaacaat | gaaatagtaa | taacacaata | attcagttgt | 60 |

aacaaagcca ccaacagagc aaaacaaaaa caaagctaat taagaagcat tgcttcagct 120

caaattagtt atctccttta aacaggaaaa acgaccatta gtctactggt tctcaaccct 180 gtctgcacat gagaggaatg gagggaaaca ggacaggtgt ttaaaaaaat agttatatcc 240 aagacccacc tcagaactat taaatgagaa tctctcaaga gtgaggccca ggcaaagatt 300 tttaaagtgc tgtcagtgtt gaaaactaca ggtctaaagt aataaggaat aaaaccatgc 360 ctcgaagcaa ttcaaaacca agaagctgat tatacaataa attttttcct ctaatcctgg 420 gaaaacaggg gggaagcang gccccgatca gtttcatttt ctttatcctc ttcagttggc 480 catagtaaga gentaaneea cateaaatat tggaagettt tgeaaaeeeg ettneeeaaa 540 tggaaatatc acttcctttc cntttagaaa gctnttttaa a 581

<210> 5922

⟨211⟩ 538

<212> DNA

<213> Homo sapiens

<400> 5922

ctgggtggta agatgcctct ttattggtgc tggagctgtt cctgagggag caggccatgg 60 gacceteate gggacceteg cecteageta etteegeetg egggggatae tetgteecaa 120 gggtatetet tetgteaget tetgtaacaa gegggeetgg taageagggg gateetntee 180 agccaaaggc tgggggcgta cgtgcaggta gcgctcagtg gccgtctcca gctcttccac 240 300 ctcatacaag gnggctgggt ccagcgagtg ggcattgatg aggctcacaa gatactcttt gtagtgtgcc tggcacaggc cggcatagcc agctggagtt tccttgccac aagcttcgtc 360 cctgagccca ttgggaacct ccttctgctc tatcactcgg cagcccgctt cagggactgc 420 ccgggcccca actggaggct ctgnattaaa catgacgtta tggcctgtaa caacttttga 480 538 acccgaaaac aatccaatcc ccaggtanaa aaggcaatct tnaagggngt ggnccnnc

<210> 5923

<211> 548

<212> DNA

<213> Homo sapiens

<400> 5923

gtttgagaca gagtttcact cctgttgccc aggctggagt gcaatggcac gatctcggct . 60 cacggcagec tecaceteec ggatteaage gatteteetg ceteageete etgagtaget 120 gggattacag gtgcctgcca ccatgcctgg ctaatttttg tatttttagt agagacgggg 180 tttcaccatg ttggccgggc tggtctcaaa ctcccgacct caggngatcc gcccatctcg 240 300 360 tttgcaaact ctaggagggc tcgcctcttt aagcccagct cagctgtggg ctagaatgat 420 cgtttctaat gntcattgca cttatggggt cagaagtaag gaacggtgga tgggtgtcaa gggcatgccc tgctcantgg acccggggag aanactcaag ancctgaang gagatcggac 480 cttggntaaa tttgctaagg cataagttac acgaaccaaa aaggcttccc anggcccttg 540 548 gcaccing

<210> 5924

⟨211⟩ 555

<212> DNA

<213> Homo sapiens

<400> 5924

60 gactttgctg atggtttatt accttaagga aaagacttac acagagaaat tgagcaatga 120 aaacccttca cattgagcaa acacattcca cgctacacaa atcatgagaa aaatgagaac 180 tgttgtgaaa catgacagat tgcccaagng ttatttttcc tctattggaa aattctaaga 240 cgtttcctca tgtgtagttt ttcagtcaca aaaatggcag taggaatatt taaatattaa 300 atcacagttt gaaaatagat acatacatac atatatatac acacacaggg atacatagtt 360 gacttatgat tcccagatat gcagggttat cattgngact gctttggatc aagacaagtt tgtaaaaagc agcgacatag ttcgacataa tagtcaggag ctagattact tccctgtaat 420 480 tgctatgcac acacagtaca aggctagcga gattatagac aatcatgtca ttcgaatcta ctatctttgg ataatctgaa tcattttcaa ggttaaaatg cgcttttggc agtaaagcgc 540 555 ctttataang gcatg

| <210> 5925 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <211> 567 | | | | | • | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | , | | | | |
| | | | | | | |
| <400> 5925 | | | | | | |
| cctttgagac | ggagtctggc | tctgtcaccc | aggctggagt | gcaggggcgt | gatcttggct | 6 |
| cactgcaatc | tccgcctccc | gggttcatgc | cattctcctg | cctcagcctc | cagagtagct | 120 |
| gggactacag | gcgcccgcca | ccacacccgg | ctaatttttt | gcacttttag | cagagacggg | 18 |
| gtttcaccgt | cgtagccagg | atggtctcaa | tctcctgacc | tcgtgatccg | cccgcctcgg | 24 |
| cctcccaaag | tgctgggatt | ataggcgtga | gccactgcac | ccggccatgg | cattctttag | 30 |
| ctacgaaatt | ttgttagtaa | cctgaaggaa | gagtgagagg | ctgaccttaa | tacccctaaa | 36 |
| agattcaggc | tatggctaag | tgatccctgg | gtcttacaaa | ggaaactgga | ggctactggg | 42 |
| aaagctcagg | gatcctgggc | catggncttc | cactctggat | aaccaattca | ttctcctnat | 48 |
| taccctaaaa | gttcctggtt | nacaccnana | gaagtcanaa | ggaagggggc | atnggatagg | 54 |
| ggagaagagt | aaaattttan | tcttcag | | | | 56' |
| | | | | | | |
| <210> 5926 | | | | | • | |
| <211> 551 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5926 | | | | | • | |
| caatccgttg | gagacagatc | atctcccact | ttcaaaggca | attcaattgt | ggtttttgtt | 6 |
| gttggttttt | ttgtattttt | ttgtattttt | ttttttttt | acaagtaagc | gtctatgcag | 12 |
| gcatcacaaa | ctttggcgga | tacagtanat | atgtatttct | ttgatgctga | aaggtcagtc | 18 |
| cctaagacaa | aatcaaatgt | ctcaaagaat | taaaagcaaa | atgcatgtgt | cttcctggca | 24 |

aaggtttcca tttgcaatgt aatctgcatt tctacaaata ctcaatgtcc aaggccacta 300

gagggtgaaa aaccagggca gcgtnttcca gcaggagtca gggcaaaccc agagccaaaa 360 ctccatcctc agcccaacct tggaggccca acaactgggg ctnaaaaaagn gggcccaggc 420 aacgccaggc ccttactggc cgccaccctn tgtgggctgg gtgcttgggg ncnagggatg 480 gcctgccttt tctgagcccc gggaaaggtt gttgccgggc tgntnacctt ttttgaccca 540 gtnnaaacag n 551

<210> 5927

⟨211⟩ 558

<212> DNA

<213> Homo sápiens

<400> 5927

gtctaagaat gttcatagca gctttattca taacagtaaa aaacaagcag aaagagccca 60 gtgtccatca acagaaagat aaaaaaaacaa actgtgatat attcatacga aagaatactc 120 agcaataaaa agaaatgaat cactgacaca tgcaacaaca tgaataaatc tcaaaaacat 180 tatgctaagt gaaagaagca ttacattttg tataatttca ctcatatgaa gtttagaaca 240 ggtaaattta acctttgata taaaagaatg agaacagtag ttatacctga ggggtgggga 300 ggggatagac tgggagaggg atttaggaaa ctttctgaag atgattgcaa tggtctaaat 360 420 tttggaaagg gtttgggtta cacaggtgta tatgtctgca agaactcagt aaatttatct 480 taagatttga cattttattg caggtaaatc ttaaatcnaa aaatttaaaa actaaataaa tnctaanctc tagttaataa tctgcagttg aagtactnng gggaagtttt tcacaactgc 540 558 aattttttt gaatccan

<210> 5928

<211> 563

<212> DNA

<213> Homo sapiens

<400> 5928 .

caatgtcaaa tgcactttac tgggcccctg ggcctcccaa cactgtcctc accaaggctg 60 gggcacccca ttcccagcac caccagctgc ccaggaagca ggacggatag agggaacaca tgtggaatgg ctgttctcct accccagagg gtgccggatg atgttgacag cacggctgct 180 tecetetece etgeagette tgteeceace eageagettg geettteeca tageagggaa 240 gggggatacc tggggcttca aaccagccac ctgctcctgc ttaaaatggg gcaaggggcc 300 atttgcaaaa ttcttcgagg ggcagtggtg aggtagaagg ggtggcagcc tgctcctgtc 360 420 tggganaggg ctgggcagac actgggagcc gggcagacac tgggagcccg ggctggctct tgcttcaggc ccanaaccct gggccctgct cgctgaggaa actggtggnt ggaancgcca 480 540 aggttaacca gcttaagctt gaaggagtac ttggtgggca anaagggtan ccagtccaaa 563 tnggttttct taanaacccc aan

<210> 5929

⟨211⟩ 563

<212> DNA

<213> Homo sapiens

<400> 5929

60 actttaaaag tgcttctcgg tatagaacaa agtaaatatt acagttttgt tcaacagcag 120 180 ctgctgatac aaactaggct ggcctacgag gtgaccgaac gcacccagca gctgatttac 240 acagaagagc catctccaaa gaattaaaag tgggccaggg acagccacac gcctgcagga gtccatccaa agggctaggt gctttattct ttctgcagca gatttaaagt gactttgtac 300 360 aaaaagtcaa acaagaataa acagctgtgg aaaatgtaac aaatcatgct agcagttgaa 420 cagcgaggga gaagggaaat ccagcaaacc gctaacatgc actgaagaaa agcgagacgg aggtagaaga gagagggaag gtggacagaa aaggaagccc ggtaaggaca cgacactggt 480 540 ttccacacgc gaatcacgca ctttantatt ggggatagct caatgactgg tangaacctg 563. aaagnatgnc ntnaccagtt ttg

<210> 5930

<211> 561
<212> DNA
<213> Homo sapiens

<400> 5930

gagaatactg gaccatcatt aaatgtgtac tgtgaagaga ttaatatgta tgaagggctt 60 120 taccaaagtc cactaaataa acactactca agtacagact gcaaaccaaa atgtatctgt gttacgacat taattgcaaa tagcaagtat ggtgctaaag tctacaccaa tggaattaga 180 240 tgagtgctat gcacttaatt ttaaaataaa actagttttc agtaaaatgg cttcggtatt tttgttttaa atacaaactt gtatatttgc agctctagtg aaccatctca tcatgtaatt 300 360 cagactigga atcatgatti tattiactaa aagccatcaa gatgiagaat atagccatta 420 gtggcataaa acatccgttc attgcgtatt ccatactgag cattaaagcc cacaaaagta tattggacac cactggtgcc tttttgagct taaaatcagt tggtagtatg ttagcaacta 480 cnggatctaa ttattcacaa tcatgccagc atcagaaaat ctggaagttt gatgtcnaag 540 tngggcccg aaaatggtta a 561

<210> 5931

⟨211⟩ 558

<212> DNA

<213> Homo sapiens

<400> 5931

atggtattaa atataagtet tageaeettt ggeatttttg teeaaaeaga ettegaeata 60
tgaagtgggg acataaeeet etteatette attteteega atgegggtee ageeategee 120
tttgtettee tetatgaeat acaatgttte teetteaaet aeggaaateg tteeeteatt 180
etgaeettea aatgtgtaga gagetttgea egteeetatg geagggaggg geteeteate 240
ateaaaeteg tegteaaaat eegtggeeag eacetteate teaeteteet gaetetgete 300
etetgtgtaa etgeeatetg ggeteteaeg gteetggeg eagttgttga etgtgggtg 360
gttetggetg tegtaeagte egetetgeeg gegegeetge tegetgetg etgggageee 420

| ggccttcaac | ctcagccagc | caggcctcaa | attctgggtc | tctactcgca | agttctctat | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| atttggcttg | actctgntaa | ttgggatcca | aactgggctg | gggcttccat | tganggatct | 540 |
| ttaggagaca | tnttcatt | | | | | 558 |
| | | | | • | | |
| <210> 5932 | | • | | | | |
| <211> 553 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | · | | | • |
| <400> 5932 | | 1 | | | | |
| aagtaagaag | atttataata | gaaaaaagtg | gcaaattgtt | actgngactt | gattttctga | 60 |
| aaacatctgc | aaattcacac | tggcattaag | aaaacccaag | tctcaaaaat | tctcctttct | 120 |
| ttctctccag | ataatonott | ttctgtgcaa | aaataaatat | ctgaaaattg | cactaatact | 180 |

aagtaagaag atttataata gaaaaaagtg gcaaattgtt actgngactt gattttctga 60
aaacatctgc aaattcacac tggcattaag aaaacccaag tctcaaaaat tctcctttct 120
ttctctccag ataatgngtt ttctgtgcaa aaataaatat ctgaaaattg cactaatact 180
tattttaact tctatattat gaataatctg cacatgctgc tttacagacg atacatattt 240
gtaaacttac tcatgcaaaa ttagtgtgcg caacagggat attggtaatt ttcatactta 300
aaaatgatac cttattatct tttaaaaatt gccaaactct ctgaaatggt taacaaatct 360
tatatggata ttcttgtctg ccagctaaaa atcaatttat gttgctgaaa acaaaaagtt 420
atacaagaaa aagaaacatg gtttttggtt tgcaagattt ttgatttta aatgagaaaa 480
tttntaaang gaaggaaatc tnggccccaa aatttaaccn tttaatccta accnttccgg 540
ggaaatggat ccg 553

⟨210⟩ 5933

<211> 559

<212> DNA

<213> Homo sapiens

<400> 5933

aaagggaggt tggctcctgc atttccactc tttgaccata ggaacgcctg gctacaaaag 60 gggctgtaat tggctgctgc ctataggggc cccaggtcct tcctccaatt gcaaggcagc 120

aactccgaag ttctaagtcc catggaaagt ggcagtggtt gggctggact gtggctggag 180 gatcaccggg cctcggttct caagcaccat ctgtctggct gcagctgggc ccttcagctg 240 ggggccagtg ttgctttcca gctgccccca ccgggtcaga tcatctctgg caaggaagag 300 ctgctggcat ctcttactgt ccttctcgca ggccttcctc caccttgggt gcctcctgac-360 420 gcctgccccg gaagtcttca tcacacgcgt ggccctccac atcatccagg aggttggctg ttgacgccgg cagcccccaa cgactgatgc ttcaacaagg ggtttcctct ttgactcctc 480 attigggett ettigaaaag giteggeeaa gitnaacagn tiecteeggi ggaettieea 540 559 aggggtttca anttgccct

<210> 5934

<211> 560

<212> DNA

<213> Homo sapiens

<400> 5934

gctttaagtt ttaatgttta tttccccaag acagcctagc ctgcactcta cttggataaa 60 ttttacaagc tagttttctg ctgcttctag ttttaaactt taaccatgtt tctgatgaca 120 aggaatgetg caaaaatact ctagttcaac aaagagttat gatcacaaaa taatttttat 180 ccattctaca gtgtttcaga attaccagtt gatttttaaa cacaaagtag atatagatgc 240 taatggtggc taatctggta tgtttcttat agcaaactgt tgttcatgca acacttgtgc 300 tcaaagggga aggcacagga tttcctacaa tgagccacct tataaagagt tctttttgta 360 caaattaatt tatgtcacat ttaatttagt gtgcataacc tcaaaactga ggtattattc 420 caatttataa aaaccacttg cataactttt atgcaggttt taaaaatcca agtttctcct 480 aaanggetea aaaatagatt ggteatgget ggetacatnt aagataaaag gatettaaac 540 cattggacng ataggcttnt 560

<210> 5935

<211> 562

<212> DNA

<213> Homo sapiens

<400> 5935

gagacggagt ctcgctgtgt cccccaggct ggagtacaat ggcatgatct cggctcactg 60 120 caacctctgc ctcccaggtt tcaagcgatt ttcctgcctc agcctcccga gtagctggga ttacaggcac ccaccaccgt gcccagctaa tttttgtatc tttaatagag atggggtttc 180 240 accatcttgg ccaggctggt cttgaactcc tgacctcatg atccacccac ctcagtctcc 300 caaagtgctg ggattacagg catgagccac catgcccggc cccaaaacta tttctaagag aagtgttgaa agtgaggctt ggctccttcc gactgcttat agtaaaataa cagaagagag 360 420 aaatgactta aatatgaaat tgttaggtaa aaaaggaagc agaacgtaaa gatttagaaa attettagae tateeatatt geaaaacaag atacagtaaa gatgtgacca ageaaceatt 480 tgctaatgaa atttggatgg atcaagcatt ttaacagaaa ncnggtatga tcctttagac 540 562 aatgggaaga atgaccccca ag

<210> 5936

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5936

aggtttattt attttattgn ttgtttcact gtttgaatgt ttatcttgcg agagtctaca 60 gaattgagag aaaatatctg caggctaatt ttacataaca tgaggcaaag attaagcact 120 aaatataaaa aataaaactt ttagcttgct tattaaacta ggaagaattt tcctgaaaca 180 cagcagttaa attggtctac aatgcattaa taaatggaga acacggatct cgcctatgaa 240 atattttaaa cattgtggac gctaccaaaa agctcattgg tatataaaaa ttttcaagtc 300 acagteetet aageagaeta aatacaagtt agtttttaae etgaatteag aagtgeaaaa 360 420 tctgtaaaaa taaaaatatt tccattgntc tcagcaatct atggattaac cttacaaatc 480 cttaaagtct tttcagtaac atgaaccatg atctcttgac aagtccttgc ttaagggcaa 540 gtaacttttg aagctggact tctcaatctg nanagagaan ccagctgnat tcacagnatt

| gntncctttg | gaaaata | | | | | 557 |
|------------|------------|------------|------------|------------|------------|-----|
| <210> 5937 | | | | | | |
| <211> 550 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | • | | | |
| <400> 5937 | | | | | | |
| actgtattta | tatagttttt | actctatcag | tcttgctgta | gctcttgttt | atgactaatt | 60 |
| tgaactatag | gaattgatga | ttacctcatt | gatgactggg | agaattaagt | aggtaactcc | 120 |
| tattaatacc | aactgaagtc | tcatattata | aaaaagtccc | tgtgcatcaa | gacaaaaaac | 180 |
| aaaatgttat | caaaccaaaa | tatctcagaa | ggacaagaaa | gggactatgg | acactatgtc | 240 |
| cacaggcaac | acactatggg | ccattctctg | aggatgacag | acactcaaaa | ggtcaaatat | 300 |
| accaatgcta | ttccaaatta | tttcttggta | agataaaaag | atctttaaat | gtatttaata | 360 |
| cttgtagaaa | atcacaataa | aacaagttgc | aatatgattt | tttttaaaaa | aacacaaaac | 420 |
| attgaaatct | aatttagtat | ttagaacctg | acattccccc | agatgaaaat | ttatatttgg | 480 |
| natttttgga | tccatggcca | ctacccttcc | gaaagtatcc | cggatggggc | cttatctaat | 540 |
| cattgggttt | ÷ | | • • | | | 550 |
| | | | | | | |
| <210> 5938 | | | | • | | |
| <211> 558 | | | | | • | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | · | | | | |
| <400> 5938 | | | | | | |
| aaatttcaca | tgaaaaaata | tttattttaa | ttcacatcaa | atacatttag | aataaatcta | 60 |
| aatttttagc | atcataatac | ttacaaacaa | acacagataa | actttgggtg | tataagtctc | 120 |
| cattetatee | taaaaacata | tacaaaaaac | tetectocáa | ctattgatca | teacetegtt | 180 |

gccttaaatt tctagatttt ccattttcag ttcttctctt tttgaagact ggggccactc 240

catctgccat aactccaaga gaagtgactg ttttttcttt aaataccact ttgggttctc 300 cgccaccatc agcttctgaa gttgatacat actcattttc agtgcttgga agttccaaat 360 ctacctcctc atgagactca acctcttgtt taatttcttg ccattctcca tatgggtttg 420 atttcttaag agttttcgat ttttcttcat ttgaacctaa ngaattcggt tctgaatact 480 tttttcttc tggggttctg ggcacttnct ncatcactaa ttttattntt tttccttaaa 540 ccttaatttt ggnttttc 558

<210> 5939

<211> 545

<212> DNA

<213> Homo sapiens

<400> 5939

cctggtccaa ctcagcagct ctatttacat aacagcgtcg cccacacccc gnggggcctn 60 tcacggcttc ttggctttct tcacggaaga tgagctggag gccgactccc gtcgntttct 120 cgaattgggc gtgaggggtg cgcccaccac atcaatgatg gtgtccttgg ggtcaggacc 180 aagtccgggt tcagtcactg ccggctcagc anaggccggg cctgggcctg atgctggtgt 240 ggcagggccc cctagcacac cagcccgggc cagtgcctca tgacggtgcc gcagcatctg 300 cageteatae tegeagttgg caeaggeetg ettgageteg tagageagea ceaggteget 360 420 tegeagetea ttgaacatgt geaceagete eteegtangt gteggeteag ntneacacea agetecagea geatetgtte canggeettg actttttetg teccaeaaaa ettggeaagt 480 540 tcatccgtgg ctccnancgg gacactgaaa cttgaattgg aaactgagcc tgaagnttag 545 aacac

<210> 5940

<211> 576

<212> DNA

<213> Homo sapiens

<400> 5940

aaagagtaat ctttacatga tgttttaatt atcatacagt ataaacatta tcatttttt 60 cattaagata ggaaattatc attgttttcg ttaagatagg aaatgaaacc aaataaaatt 120 tgtgaaaatg tcagtcatct ttgggaaggc ctcaaatgaa caagggagag tcttgagctt 180 ggtatccttt catcttggaa gaattcatag ctgggaattg gctaaagctt tgcagtgggt 240 tgaatgatgg tttccaatga gatctgtcca tgccttagtc ttcagaactt gtgaatatga 300 ccttatttgg aaaaatggat tttacaggtg taattaagtt aggaatcttg agatgatatc 360 atcctggatt acccaggtgg gctctaaatc acatgaaaaa tgttctcata aaaatttcag 420 agagagtgaa gcctgcagac accttcattt caggcttcta gcctncagaa ctatgagata 480 ataaattctg gtggnttaag tcccaagatt tgggcaatgc atacagcact ctagggacta 540 576 atacagctcc ttaaagagag ttgaagaaan ctggng

<210> 5941

<211> 396

<212> DNA

<213> Homo sapiens

<400> 5941

cattggtaca aatgetttat tgaaactaaa tacataatac acacaaagag atgaagacaa 60 tatagaagte egeatagtea teataateee gtteettgge eggttgagge ageteagtgg 120 etgageecag teaageeaac eegeagette acteacgaet teaagatttg atgetaatte 180 ttttggattt etacagttat taaataagtg tetgagtgga etgtetttgt teetttgtt 240 tttgaggget ggetgggtag gagtggggt ggtttgtetg tggeagtgaa tttttgeeag 300 gagaggaaca ttaaatgeea aaggtaggtg geagtattte agtetetgee enageegaca 360 ggeagagaga cettnacaan taatangaee nannaa 396

<210> 5942

<211> 554

<212> DNA

<213> Homo sapiens

<400> 5942

gtcaaagtca ctatttgggc cctaacataa tcctgctcag agcgacggaa aaaaggcaag 60 ccttttcaaa cataactete tetacaagee agetattatg geaagggaaa aaagaaagea 120 tctagataaa tatctatcaa aattaacttt aagagaaata ctctctttcc ttaaaagccc 180 ttattttttg agacactaga aaataagtta ctataaaaag tggtggtctg ggggctaaaa 240 acaaaacaaa aaaaatcctc ttttctacat tttttagttt tctggcatat ttttgaagat 300 360 tttacagtcc caaatgagtc aaatgcctat ttgttttttg aataaacaat ggacttgtca tgtgatatat gtttctaaac ttaagtatta cagaaaacat cactatccat ttgtaaaaaa 420 ctcattctgg aaaatacctt tcccttgggt tggtataaaa naccttccat anagcttttn 480 gggaatettg geettgaaaa accaeegget tteattaatt teeecettna aaateaangg 540 ncccnaactt aaac . 554

<210> 5943

<211> 567

<212> DNA

<213> Homo sapiens

<400> 5943

ctggaatgtg aaattggttt agaagccttc atatttgtaa ctctagcctt tgcactttct 60 aaaatggaaa tagtgtgtgt tgtctttcaa tctgtctctc acctgtggta gggcttttgc 120 agggctggag gtagaaggcg cgcccttgga gaagggtgtc agcacagaga ctgctgcctt 180 atgetettgg etgaacgaag gettggtgta gatggegttt eeegetaact teteaggeee 240 ctgctgtgtg tgaggctgtt ccagctccct tggggctgga ctcccgagcc ttttttcttc 300 ggcagcgttc tccacagatg cctgggcacc ctgttccctc ctgatgctct gccttcccac 360 420 ctctttgaag tgccttttct ggatgctcat tgggcccatg aggactctat tcactttttg ccggttttgg cctacagttt gaatctttgc caggctggtt cctgnggtgg caagtttaaa 480 540 tgaacggtgg aacattgatt cccatctang gttactgntg agaaatatgg caaaggnact

| taangcctgg | tacatactct | nggattg | | | | 567 |
|------------|------------|------------|------------|------------|------------|-----|
| 5044 | | | | | | |
| <210> 5944 | | | | | | |
| <211> 568 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | • | |
| | | | | | | |
| <400> 5944 | | | | | | |
| atagctgatc | aagaatttat | ctttattctg | attatgattc | ttcaaagagc | attagttgtt | 60 |
| taaatttaat | ttaagccatg | cttaaatcga | atacatacaa | aatatgatta | cttatattcc | 120 |
| ttttgaccaa | agagctgaaa | attttgtgtt | ccagttcatc | ttactcatgt | tattctgatg | 180 |
| cgaaacactc | taaatgcaaa | ttgttttgaa | agtaaatagg | ccaagtggcc | taccctgccc | 240 |
| tttttatagt | ataaattctg | tgatactgcc | ttcttttcag | tatatgctcc | tctgtgggcc | 300 |
| tttggcttac | acggagacca | tcagctacaa | cgcatggcag | tcagcttcag | agtcctcgct | 36, |
| ccagtgtgca | tctcgtttct | cagccacaag | tttgatgaat | tgagagtgac | tggcataaag | 420 |
| cttcagttta | tcattgatgt | ccacccattt | cacttttcca | gcatcatctt | cagcttctag | 480 |
| cattaagaat | atccattatc | tnaccggttc | gcatgggagg | tcacaagttc | tggctcatac | 540 |
| agcnttataa | gggttcagga | catcaccn | | | | 568 |
| | | | | | | |
| <210> 5945 | | | | | | |
| <211> 554 | ~ | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | • | | |
| | | | , | | | |
| <400> 5945 | | | | | | |
| gcattttaag | ttttaatttt | atcaaaacaa | aataatttaa | ccatataaag | aaagaaagtt | 60 |
| caacaaacaa | ccaagaagcc | aatcatttcc | ctgattgtga | acaaccaatt | gagtagtaaa | 120 |
| tcctgaacag | ttgaccgcat | atacaagaca | ttccgtcatc | ctctagtgct | ccaagtggca | 180 |
| gaggetgatg | tttttccctg | gttcctattc | ttccaptoot | gaagtaatgt | geteaactgt | 240 |

tectataett etteagaeca aattatgtat atteetaegt aagtgeaaag eatggatgaa 300 aagaateata eagggtagaa ateeageaca taagattte taggttetga eeettatatt 360 taatgggtte tgaaaaataa ggacaataaa ttgtgettaa atattgagaa atgtagtgtt 420 teaaaggeea aagtgeette etacatgaae tattetetgn ggaagaaaet gaggeateag 480 ttgggtnaga eettaeetaa aggatntaat aaattaeaet gggnaaanta geaetgggga 540 agaaggaate etgn 554

<210> 5946

<211> 568

<212> DNA

<213> Homo sapiens

<400> 5946

cccttgtgtc caggtttatt ttacattctc ttccagaggg gatgtggggc tgggggagag 60 ccagcaggca ggcgggcagc acacagcagt ctccctgggg aatatttgag ccaggctagt 120 ggtgcctggc cccacagtgc ggggtgatat gccagggcca gggccaggac ttggcagccc 180 ctgggaagag gaggccttgg ggccagagct cttgccaggc ctagatcgct aagaaggtgc 240 tgcgtctgtc ccccgccttg ctccgcccc ccacacccag ctggaggcca gaaggcaaag 300 agggcagcca gcaagctggg gtgctgggag gaaccccagc aggcgggggc ggcctttggt 360 ctctacgagg ctaggaactg gttctggtta gaggaacccc gtgggggcaa anccggaaaa 420 cttggtccct tgttagagga aacgcttgga ncaggatggg ggttggggac ttggggtctg 480 gtctcaataa gggctggaaa tggcttccgt ttnaaacaaa acttttgatt ttggggaagt 540 568 gttcccaatt tctnggtncc tccggana

<210> 5947

<211> 557

<212> DNA

<213> Homo sapiens

<400> 5947

aagccttcga acatctaaga tcttgtttct agcctagggg ctggctgcag aggaggctgt 60 gccaggcaca gtgacctcag aagctctttg atgacttcac agctgcagag ccaggacctg 120 tgccatcctg gaatttcaag gtctgactgg ctcctgactg ccctcagcta ggatccaggg 180 cccctttcc cttcccaact ccccaaggca ccctgcctcc cacctgccaa caggggtggg 240 ggggatgagc tggattgcgg tgctggtggt aaggccccag catgtgccat tcatccagcc 300 catggtatgg aaggcttgct gagaggccct caggcaccac agctgaggag cagggcttgc 360 teccetggee accanagget ttetectgee tgacatecat gaaeggnaga acaggeeagg 420 gcangnggtt tccccaaang cagctgcttc antcaggtgg acacacttgt taanggctgg 480 aaactcaagg gttttgaagg ggngggaact aaaatcccat ccaattntta ttcctggcca 540 557 aaggcaaaac agaaaaa

<210> 5948

<211> 554

<212> DNA

<213> Homo sapiens

<400> 5948

attgatacat cttagatgtg catattttgg gagtacatat gataattcaa cacattcata 60 taatcaaatc agcataattg ggatatttgt caccttaaat attgatcttt tcttgatgct 120 atgagcatta ggttaatggg tacaaatgta cagttagata aaaagaataa gacctggtct 180 tcaatacatc atggtggcta tagttaacat taaccattgt acatttcaaa atgctagaag 240 300 agaataattc caacacgttt tttgtttgct tacttttttc tgaattctaa tagactgata catcagtccc tgctgtagcg aaaataatga cttcctcaaa atgcacttca agaatgtgac 360 420 ctcaatggat gtaacagaaa gaacctgctc ttggtgtttg ggaaagaaaa ggtgttaggc 480 ccgccacaat tccttctcct nccangtgga ttcanagtcc tggaggacag aatccttggg aacttgagtg aactcctttn accagnccag ccttgactca aattcagctc atatagctca 540 554 caageteet ggee

<210> 5949

<211> 551

<212> DNA

<213> Homo sapiens <400> 5949 gagatggagt cttgctctgt cacccaggct ggagtgcagt ggcacatgtc ggctcactgc 60 aacctccgag tcccaggttc acgccattct cctgcctcat cctcccgagt agctggagct 120 acaggtgccc gccaccactc ctggctaatt ttttgtattt ttagtagaga cggggtttca 180 ccatgttagt gaggatggtc tcgatctcct gacctcgtga tccgccctcc tcggcctccc 240 aaagtgctgg gattacaggc gtgagccaca gcgcccggcc taaaatattt tcaaagtaat 300 ggcaaaaact gcaattacat ttacaccaac ctaataacac aaatttattg ncttatggtt 360 ctggaggtca aaagtcagaa atgggtttca ctgggccaat caagggaggg agggaggcat 420 ggcccagtca gggagtcggc anggctgngc tcccttangg agaatccgtt ccttgntccg 480 gggttccgtc catctttaga acttacagta gaacatntnc aatctactgg nggtttcagt 540 551 tttacaccaa c <210> 5950 <211> 560 <212> DNA <213> Homo sapiens <400> 5950 aagacagagt ctcactctgt tgcccaggct ggagagcagt ggtgcgatct cagctcactg 60 caagettege eteetgggtt caeaceatte teetgeetea geeteecaag gagetgggae 120 tacaggggcc cgccaccacg cccagctaat tttttgtatt tttttttct ttttagtaga 180 gacggggttt caccatgtta gccaggatgg tctcgatctt ctgacctcgt gatccgtccg 240 300 cctcagcctt ccaaagttct gggattacag acgtgagcca ccgcgcccgg ccaaaagatc 360 cataaacttt gagtcaccag atagagctaa catttaccac agaggcatgt aaagaaaacg

| attctagcag | agtaactata | atacaaaaga | acaatattcc | aattatgttc | ctatgttcta | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| tccaggaagg | tttaagagga | gccttttaaa | ctggaactat | attctaagaa | ggtgggaaaa | 480 |
| aagttttctt | ttggttttct | tattaaccgt | accttgaaag | ccccaaataa | angttccttg | 540 |
| gttaaaagcc | ctggganann | • | | | | 560 |

<210> 5951

<211> 556

<212> DNA

<213> Homo sapiens

<400> 5951

| ggcaagtgta | gaaatttatt | tgaaccaaca | ttttcactat | gatgaaaatt | attcttcaac | 60 |
|------------|------------|------------|------------|------------|-------------|-----|
| attgatccaa | gctcccacat | ttgaaggtta | gggaaaatat | tgcactttgc | attttctagc | 120 |
| actcctcata | cacggcaaaa | agttttaaaa | acattctgct | agttttgttt | tatacaatct | 180 |
| cccaaattca | tgcacacaat | cattccaaac | caatgttagg | ttatcccaaa | aaaagggaaa | 240 |
| aactccaaaa | accataacct | taaaattgca | ctaaagctct | gtaaagaaaa | aaatataata | 300 |
| aatgtcttat | acaaatttca | gaacatttaa | gtgcttgcca | aaaagagttt | attattcctc | 360 |
| atcctcattt | tcattctctt | gaccggagcc | ttctgatctg | tcaccctcca | accggtcagc. | 420 |
| tcggatatga | ttaagtgaag | ccaacatcct | caacatgaaa | gaagctggaa | ctgnaatggg | 480 |
| gttctaggtt | cttncacatg | agttcgtttc | gagttatact | tcattagcaa | gttttcgggt | 540 |
| aaaaatcctt | gatttt | | | • | | 556 |

<210> 5952

<211> 551

<212> DNA

<213> Homo sapiens

<400> 5952

actgggaagg ctagttgtaa acataaacat tctcactgaa ctactggccc cccaaaacct 60

aacctatete acaatcaata atcatetttt gactataaaa teataaaaac ttgtaetetg 120 tggctctttt gtctcgatga tttttcagag aaaaaaatta gctgtgttaa gtagtttcac 180 tgatttatcc atcttgaata gctgccagtt ctggaacttc atacatcctc agaacgtctt 240 catagagcaa ataattatgt aggcttctgg gaagtggcag ctgactaata taactgtcag 300 accgtagacg ttctgatttt agactggacc gaatttccaa acgacaaaga tgggtcaggg 360 atggaacagt ggcaatatgt tgctgtagaa tccaagcgtt tgaggcacga gcagagagca 420 tcctttcaac agctggtgca agtgtcttcc aattagtaac tccaaagtga agataagggg 480 gcaatgcttg ctgggtcaat ccaagaattg cccagtnnaa tcagngggtc aaatccgcaa 540 551 cccnaaaatg g

<210> 5953

<211> 551

<212> DNA

<213> Homo sapiens

<400> 5953

ctgagacagg ctcttgctct ctcacccaag ctggagtgca gtggcacaat catacctcgc 60 tgtagtcttg agctcctgga cacaagtgat actcttgcct tcctgcctca gcttgccaag 120 taactggaac tacaggcatg caccagcaag cctgctaatt ttaacatttt tgtggagaca 180 aatttccaag aacgaatgca aacacacaga gttgacaaaa tgataagtag aaattttaac 240 atgtctgaag agacaaaaag aaaggaaaaa tgcaggccta ataacacaga ttgtgattcc 300 tttaatatet agaeettaaa ttggatatae aetteattee taaatgtgta ataatattet 360 ttgtgcttct aaattatttg actaatgtca acagaaaagc accagcatat gctaatggat-420 gagttcaatg ctgcatttat gggaaaattt cttattnccc aaatagctga aatgaatcct 480 attcactggc tggtcttgct atacgctgna aatttttaaa atgatgttga atgnaanggg 540 551 aattcccgtt g

<210> 5954

<211> 566

<212> DNA

<213> Homo sapiens

<400> 5954

aaggtaagaa agtttctgct tttattgaaa atttatatat gactcagtat tgtaataaat 60 120 gggatttact tgtagtggca agacagactt tttatcaata cagaataaat attaacagca 180 ttcgtgagcc aatgttgaga cccaacaaaa tgtaggaatc aagcatgatg taagaaataa 240 300 ttatccagag aaaaagatgg tgtattctcg gatgataaga ctgtctttgt aaactggtgc atatcaatta gtcccatcct cacagetcac cttcaaacca cagggettgt ttctggetat 360 420 gttaaaggac catcctctga ggaaagcaga ggagaggaac tccattatcc ttacagtgaa 480 acgcaaccac tgcagaaaaa ctccactggt aaatagaaca cagtttaata agtagattgg atatgatcta actataaaat ttaggtacca gagtaagtgt acatgtggca ggcccggaaa 540 aaaatcatgg canttttctt atccct 566

⟨210⟩ 5955

<211> 564

<212> DNA

<213> Homo sapiens

<400> 5955

gaacaagagt aacctatatt ttgggagttg gtgtgcaata aggctaaaac aaccaaatta 60 taaaacagta tacctgacac agtatgttga ggaaatatgc atctgtttca tagtttttgt 120 180 acttatgtta atgeettaet aagetaeaca tatgtaaata gtatgtttte ttgetaatat attaaatcca atagaatcat taagttctca ttctcctttg tgacttgtaa ctttatcaga 240 taatttaatg atgaaagcat atgcccaaac ctgcagatca tatgtactgt catctattac 300 aaccagaatt ctcctcacat ttcatttttc ttaaaaggaa attgagaata cctgcaacat 360 420 cgttaaagag aatgttgtag tgtgaataaa aactagaact cagtggtcta tgaagtatgt 480 attattttgg caagtgattt tttccttcct aagaataaga tgaacatgtc caaatgttcc

| tgngccaact | tccagatccn | gaagtatnca | ggcttcattt | cctcaatgnc | ccaattagac | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| cggtctagtn | aaccgaatca | attt | | | | 564 |
| | | | | | | |
| <210> 5956 | | | | | | |
| <211> 565 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5956 | | | | | | |
| gagctggagt | ttcactctta | ttgcccaggc | tggagtgcaa | tggcgtgatc | tctgctcact | 60 |
| gcagcctccg | cctcccgggt | tcaagtgatt | ctcctgcctc | agcctcctga | gtagctgcga | 120 |
| ttagaggcac | ccaccaccac | gcccggctag | tttttttatt | tttagtagag | acgggatttc | 180 |
| accatgttgg | tcaggctggt | ctcgaactcc | tgaccttagg | caatccaccc | acctcgaact | 240 |
| cccaaagtgc | tgggattaca | ggcatgagcc | actgtgcctg | gcctgctcat | ttctttttaa | 300 |
| caatgaaaaa | tgttccactc | tctggatata | ccacagttta | tttttccatt | cacctactga | 360 |
| aagacatctt | ggttgctttc | aaattttggc | aattatgact | gaaactctta | aaaatatcca | 420 |
| tgtgtgggtt | cgttttttt | gtgtgtgtgt | taagttttca | actcatttgg | gtaaatacca | 480 |
| aggagtatca | ttactggatc | atatggtaag | aagtccttca | gntttaagag | aaacttctat | 540 |
| ctggcttcca | agganctgga | atgaa | | | | 565 |
| | | | | | | |
| <210> 5957 | | | | | · | |
| <211> 562 | | | | | | |
| <212> DNA | | | 4 | | | • |
| <213> Homo | sapiens | | • | | | |
| | | | | | | |
| <400> 5957 | | | | | | |
| gacataaatt | tatttttatt | tcacaatcca | caaaacattt | caaattaaag | aaatacatta | 60 |
| aaagtctcca | gtttttgctt | taatttcaca | tttcatacac | tcacaatatt | taggaaatag | 120 |
| tcattttgac | tatettataa | ctaggataag | aatacaacaa | caattetgee | anatoottaa | 180 |

atgccccaga ggatttctgc tcttctctc ctaatttggg agctataaag cagtttttac 240 tcccaacaca aattcttgat aaaaaccata ctctttgctg atttttcatg ttagacatta 300 aggatgacat gcaagtaaaa aaaaaaaaa aaaagtagcc ctgataccaa gttaatattc 360 ccttgaaacc ttacttggct gctaaatttc tttgttgaaa accaacttat aacaaattgg 420 ttatccggtt agctttttc cctttttctt ccattttctt cttgctccct ctttcttta 480 ctttttcctt ttggcatgnt taattagaga acattttcta taaggcntta ttaagaataa 540 ttggccttaa ggaatgatgg an 562

<210> 5958

<211> 567

<212> DNA

<213> Homo sapiens

<400> 5958

ggtaaaccca ctccatcgtc atacatttct ctgcaaatct tgtacacgga tgcctcatcc 60 ttaggaaaat aaggtctgat agtataaact ttggaggtag gagtcagtgg aggtggctga 120 aaaaaagaga tcatttgccc catcaattgg cagcaaacgc tgtgggaaga aaaaaaagga gatggattag tttggggaag gtatccattt ttttaaatgg gtgtgcactg cagattacca 240 acttatatta actggctact gcaggcagac ctaaagaaga ggggtgtact atgctttact 300 aatagaaata cctctttgct gggggagggg agtgcttctg aatagaaatt acccactctg 360 agttacaget ttagtggcat attaatgggg atttaaattt acagtaaaaa caaaaacaaa 420 aacaaaaaca aacctattcc aattatgaca aatctatttt tttttaaaac ctatcttaga 480 tagaccatct tcctacgata agatggcaga acagaatgtc aggaaganaa ggttggtctg 540 aaaaagggta tctggccang aaacctt 567

<210> 5959

<211> 546

<212> DNA

<213> Homo sapiens

<400> 5959

gagatagagt cttgctctgt tgcccaggct ggaatgcagt ggcacaatct cagctcactg 60 caacgtccgc ctcctgggtt caagcaattt tcctgtctca gcttcccgag tagctgggac 120 tacaggcaca cactaccatg ctcgaccaat tttttgngtg tttttggtag anacagggtt 180 teaceatgtt ggeeaggetg gttttgaact eetgacetea ggngateegt eeaceteage 240 300 ctcccaaagt gctggattac aggcatgagc cactgngccc agccctttca cagatttttt 360 aaactcattt agttgggttt ctntaagaag caacaaaata aatattgcaa aggaactgna tattaatatt acaagtatat gcaaatttgg agtatccagg tagtagggaa agaggataaa 420 tactgaaaat aaacaatcca aatgtttttg ggataaagat cttggacagn ctatgaactc 480 attettaate teaagetaet tggetnacee attegtttet tggaaaaent tggatggaae 540 546 nggaac

<210> 5960

<211> 553

<212> DNA

<213> Homo sapiens

<400> 5960

ctcaagctgg cttttatgat tccaacttct ttctcaaatg cttctttaat ctgcaaatgc 60 tctgccaggg gtacagaaga gttcttttga ttctccaaca attgatgcag tttggtcact 120 gtctgctgct ctttctcgta acacctttgc atactcttca gttcttcctt tagattttca 180 attgtgccat taagagattt tttcagagcc tcaacctgtt ccaatggaac atgttgtttt 240 tgcaaaagat tttgcactgc aagtatctca gaagtctgtt tggcattttc ttctactagc 300 ttctctttca cattctttac ttccgtgtat ttctgtgaca agtcttttaa ctgtttgttt 360 agctegtetg titttetget taatgetett teeattteat gagaettete aatgagaaet 420 gnettatete teaaatettt etgaagggta aaaateteet tetttaetgg cattetettg 480 ctngntttct ggcttcttct tcactggcac tatactttgg ggctgctctg anaccgggct 540 tttagtcttc ncg 553

| <210> 5961 | | | • | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <211> 556 | | | | | · | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | · | | | |
| <400> 5961 | | | | | | |
| aggttgaatg | aatgatttat | atgttccatg | tttatgtaag | cacttaactt | ctttaaaaaag | 6 |
| aaactagttc | tttcaaaaag | agctctgaat | tctgtctctg | gttagaaagt | gtgaacaatt | 12 |
| ctcagaactt | gggacatgat | ttttcttctc | tctcacttct | tataagcaga | tgccctttt | 18 |
| cagggcattt | tcaggttgca | caggcagaac | taagtgagaa | atacggctcc | agaggccatt | 24 |
| cagtttgtct | gggtccatat | gattgtagga | gttgggtgtg | ttagaattgg | tgaacttgac | 300 |
| tttaagaaaa | tctcttactt | tttcttcaac | ttcctttagg | cctagacttg | ttccaagtgt | 36 |
| ctcttcctcc | aataagacag | tcaggactaa | ggctacatct | ttgaaggctg | cgttttcatg | 420 |
| gtcacaatat | ttgtagaaga | tcaaagtnaa | cctgcgggaa | atgctcaaaa | cggngaccac | 480 |
| actgcattct | gggccattct | taaacccatt | ggtcantctt | gggctacccc | tagtttggca | 540 |
| ggntcactgg | cttgng | | | | | 556 |
| • | | | | | | |
| <210> 5962 | | | | | | |
| <211> 557 | | : | | | | |
| <212> DNA | | | | • | | |
| <213> Homo | sapiens | | | | | |
| | | 4 | | | | |
| <400> 5962 | | | | | | |
| gagtcttgct | ctgttaccca | ggctggaatg | caatggcacg | ttcccggctc | actgcaacct | 60 |
| ccacctccca | ggttcaagcg | attttcatac | ctcagtcacc | cgagtagctg | ggattacagg | 120 |
| tgtgcgccat | cacacctggc | aaatttetgt | atttttagca | gagacggggt | ttcaccatgt | 180 |
| tggccaggct | ggtctcaaac | tcctgacctc | aggtgacctg | ctcgcctcag | cctcctaaag | 240 |

tgctgggatc acaagcgtaa gccactgcgc ccggcctagg aggcttctaa taaagattct 300

| atcactccta | agaaggccta | gagacatgat | caggcctaga | cctgctgatg | attaccttgg | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| tatggtgtga | taatgaagtc | cacactgagg | atgacagagc | tgagatgaag | aaaatctgga | 420 |
| tctttgcttg | gctcagttga | gtctctcgag | tctgctctac | catggggctt | cttaagtaaa | 480 |
| atatatcctt | ttttggtaga | aacagtgtct | tgctntgggc | caagntgaat | gcntggngca | 540 |
| aacnttngnt | aattgga | | | | • | 557 |

⟨210⟩ 5963

<211> 576

<212> DNA

<213> Homo sapiens

<400> 5963

| gagacggagt | cttcctctgt | tgcccaggct | ggaatgcagt | gacatgatct | tggctcactg | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| caacctccac | ctcccaggtt | caaacgattc | tcctgcctca | gcctcccgag | tagctgggac | 120 |
| tacaggggac | tacaggtgtg | tgccaccatg | cccagctaat | ttttttggta | tttttagtgg | 180 |
| agacgaggtt | tcaccgtgtt | ggccaggatg | gtctcgatct | cctgacctcg | tgatccgcct | 240 |
| gcctcagcct | cccaaagtgt | tgggattaca | ggcatgagct | gccgcacccg | gccaaattct | 300 |
| tttaattcct | tagacacagg | ttagaggggg | aacaatgctt | aaaattccat | ggaactaaga | 360 |
| ttttttttt | attttattt | ttttgagaca | gagtcttgct | ttgttgccca | ggctggagtg | 420 |
| cagtggcaca | atctcagctc | actgcaacct | ctgcctcctg | ggttcaaagc | aattctcctg | 480 |
| cctcagctnc | caagtagctg | ggactacagg | cacccaccac | acacttaagt | aatttttaac | 540 |
| nttagtanaa | acggggttca | catgttggnc | nccctg | | • | 576 |

<210> 5964

⟨211⟩ 557

<212> DNA

<213> Homo sapiens

<400> 5964

agacagaatt tegetettgt tgeecagget gaagtgeagt ggeecagtet eggeteaceg 60 caacctctac ctcccaggtt caagcgattc tgctccctcg gccttccgag tagctgggat 120 tacaggcgtg cgtcaccacg cgtggctaaa tttgtatttt tagtagacac agggtttcac 180 catgitiggic aggotiggict caaactootig acctoaagtig atcoaccotic ottigacctat 240 ctcagtgctg ggattacagg cgtgagccac acctggctgc cttttaactg ttctgataag 300 caaactctac agttaaaacc aatttttgtg tgcactaaaa ataccaactt cctcatcaaa 360 atctacaaag taccatgtga aatgaaatgg catgaagaca acagtaagaa aactgtagct 420 ataactcaga aaaagaatag ctgngatgca tacatagttg gaaaatgcat aagacaaatc 480 tgaagagaag tngaaaatna aagaattete ttttttttaa aanggggttn eettttggng 540 gccanactgg antgcaa 557

<210> 5965

<211> 576

<212> DNA

<213> Homo sapiens

<400> 5965

agateetgtt tatttaaaat gaaaaggatt ageatgaggg atggtaacat teetttttga 60 tatctgtagc agcaagtttt cttatgattc attattcttc ttcttacagc tttaaatcat 120 ctaggaactt catataaaat ttaattccag tttcaactag ttgtggagca tttgatccaa 180 aataaaatga aagteetete tgaagttgta gaggagaete aagaateaga acaaeetgaa 240 gttctttaag ctgtcagttg aaggactagg taaaaaacaa atatcattta gtgtgatcat 300 taatgcacat gagtcattat tccatgtggt tgctgtcgac tggtcagggg cacttcaagc 360 cctaatctgt actttgtcct gtctctctac accetgttct actttttcag cttgttgcct 420 gtaatatgtg aatggaaata aaataatcaa gcttgttaga attgngttca taacgacaca 480 aaagacctga gagaatgtaa gaacctntag aacatncaaa ataagacata tttttggtgg 540 gttaaaanct tttgggtggg tcatttcttc gggctn 576

<210> 5966

<211> 574

<212> DNA

<213> Homo sapiens

<400> 5966

aaattagaca aacctggcag atagcgtgag aaagaaaata tctgaattag catagccagt 60 tttagaaatt tctggttggc tgtttttaca ttaagaaatg aaaaaaacaa gcaagaattg 120 actitatgcc tccctgacat cttgtgcata tgagtttggt ttctgaatgg attattggag 180 catttttaag gttgggtgtc tcaatctttt aagagtgacg agcatgagga gtggctggca 240 tecacacetg aageaacact ttetgtgate ecacagettt ggatgeeaaa geagetgete 300 360 agcgtgacac gaagaatcag tccagaaagc tgccacagac cctctccatg agatttttaa aaaaccactt ttgttttctg agtaataaaa gaaaccccag taatattagg gacatggatg 420 ttagtacagt aattaccaca cattgaaaat attgttcagc aggaaaagta aaactttcaa 480 aaaatttett aaagateeta titaataaat aattttgatt aanggaeeet tatgeaaaet 540 tggaccaant actgaaactc cactggtggg gaaa 574

<210> 5967

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

<400> 5967

gagatggaat ctcgctgttg cccagggtag agtgcagtgg tgcaatcaca gttcactgca 60 gcctcgacct ccaaggtgcg agcgatcctc ccacctcagc ctcccaggta gctgggacta 120 caggcatgca ccatgatacc tggctaactt ttataaaatt tttttgtaga gatggggtct 180 tgctatattg cccagactgg tcctgaattc ctgggctcaa gcaatcctcc caccttagcc 240 tcccagaatg ctgaaattac aggtgtgatc cactgtgccc tgcctcactg aaacttttaa 300 atcataaaat tatctgcatt ctgtatgttc cttgagcaca tagatacact ttttcatcaa 360 tggggacaca ttcctactat aaggctgaga aaagagaagg gagttcaata cttactgaat 420

aaatgtagge ataaacetea etacetgttt caaaggeete attatteet tetetaagae 480 aaateengag caetttgeag neattataga ettetnttaa acaacetgga geetaaanat 540 aggggtaagg ggtggaettt gattgaaaaa aac 573

<210> 5968

<211> 574

<212> DNA

<213> Homo sapiens

<400> 5968

atacatgttc atttttattt ttctctagct ctgttttata aatacatgtg ttcaaacaat 60 cttgattagg agcattttaa tcacgaagcc aacacatgtt actgcgtatc tgtttaaaat 120 ctggtagttg cttaatggga ccaacagcag caatagctgg actcctatta taagtgtatt 180 tggtacatac ttctcgaatt gtctcagcat tcacagcatc aattcttgct tcaagctcag 240 ggatgggaat ccttctatta tagcataaca tttgcctacc aatatcttca caaattggag 300 ttgaaccatc aagctgcaac aacatgtttg ttttcagaag atttctggct cgtgcaacct 360 cactttctgt gacacttgta cagagtcgca tccattcttt ttgaacaaca tgtagcatgt 420 ctgcaacagt ggatgattca caaaccatat acagtcccca taatcctgna tctgngtagg 480 aagtgttgaa agactgaaaa gctntggcaa agatggcatg acaagtganc tgggccactt 540 574 gctanaaaat cattcttccc caaaagagcg atcc

<210> 5969

<211> 419

<212> DNA

<213> Homo sapiens

<400> 5969

aactttgcan aaagcttcat ttttactggg ggttggggtt aagttaaaaa catttgacta 60 tgccatgtag gcgactccaa cacttcagga atacaaagct ctgaaaagag gttatgtanc 120

aaagctcatt ttcattcaca ttgataatag gncanacaca tttttgaaga aaaaaatgga 180 cagagcgtaa aggataacag agtacacatt ttcattttct atgatgaaaa ggaattttaa 240 aaattggctg ttgnacataa aaacttttt tttaaaccaa acaacctaga attaaatgga 300 gtaaaatgtg agaagcccc ctttttcct ccttcagcag acaaaaccgc tgncaatagc 360 ttgatatgng nnatcacaga ctctttcta gggtgcacac acgcatatat gctncnnat 419

<210> 5970

<211> 457

<212> DNA

<213> Homo sapiens

<400> 5970

ggagacaagg tataactgtg ttccccaggc tagcctcaaa gccctggact caagcaattc 60 tcctgcttca gcctacctaa cagttgggat ttcaagcatg tggcactgca ctcagcccca 120 ggaggctttc tgaaggaagt gatgacaaag gtagattttg agaataaaga aacaaggtag 180 cgggctggac acggtggctc acgcctgnaa tctcagcact ctgggaggcc gaggcgggtg 240 gatcacctga ggtcaggaga ccggcctgac caacaaggtg aaaccccgnc tntactaaaa 300 atacaaaaat tagccgggtg tggcagcatg cgcctgtaat cccagctact cgggaggcta 360 agacnggaga attgnttgaa cccgggaggc agaggttgca gtgagctgag attggcacca 420 457 ctgnactgca nnctgggcan caagcgagac tgtctna

<210> 5971

<211> 424

<212> DNA

<213> Homo sapiens

<400> 5971

gtagctcaaa gggctttgca aaattttaat atattaaaac aagaggcatc tgctagaaaa 60 cattctattg tataaaaccc gagttcttaa aaacatgttt tctttggcac tttcattccc 120

tccctccct ttcccagca tattgcaaaa agctctccag tgctaaggca ttggcagggt 180 gtgtaaacag cagccagcat atgtggaaga ataatacaaa gcttttttt ttcttctaat 240 atgtctgtgc agcaagcata aataacagga cccattccaa ggagtgtgt tgggttttcc 300 ccctnccctg tgtcctctgt caccttggtg atgaggccac cagtgatgtg aagactggna 360 gggaacccta ggtcanacct tggttncctg ttgntcttcc cnagacccan ggttccctng 420 gttt

<210> 5972

<211> 574

<212> DNA

<213> Homo sapiens

<400> 5972

ccagtgtttt gcagtagaac agggttccta ccatcacctc ccttaggttt aaaaaaccca 60 aaacacaagt ctgctgtgag tccttcagca tcatgagtgt gagtgatctg agtctggaat 120 accactgtct ctgtagcttc ggttactact gctttcactg tgattgtttt tgtacagatt 180 cattccatta ggaggaaata tggtgtgtat tacaaactcc tccttcgaga tgggttcatt 240 gcttattggt aacatctgaa aagaagtttc cctgatttcc aggatagagt tgtccttctt 300 agtgccagct tetgcatagt cateetttet teteeteet ttgctatatg cacaagttee 360 ttgagaagag cgatccattc ctatgaacat accaacacac taaagcaaga agggcaatgg 420 taaccaggc cacagccca ccaatgatgg cagccaangn naaatggggg ttttgnaagg 480 tcttgctttg gctctcaatg anggtgggtg gaaggttgac anttcaaagg ggtgcaagtt 540 taagcttnaa tccaaccggg agttcattna atag 574

<210> 5973

<211> 570

<212> DNA

<213> Homo sapiens

<400> 5973

gtagagatgg gatctcgcta tattgcccag actggtctct aattcttggc ctcaagtgat 60 cctcccgcct cagcctccca aagtgctggg attttaggcg tgagccactg cgcctgcctt 120 actectactg tacttaagge atcataacat ceagaceate atgggeeagg etgetetgee 180 ttacacttcc atttcattct taacatgtga cacaagatga aacacaacat acttctgaac 240 ctgcacctca gagattgcta gagctgagct tgcagattac atggatcatt ttgtgattgt 300 tgaaaaggcc tccccttcct ctgccttagg tatattctac ctttgaaggc agatttcttc 360 aggitaaaat atgatatate caggagteee etgitaaaaa eecaaatate tetgaaagge 420 atactgnttt aagettetag aaccagtata aattgattta tteageaact tttggaetta 480 gacctggatt ctaatcctga ctttggcaat ttctaactgn aaaactgcaa taaaatatta 540 accttctgac atgaaggaat tagtaanaag 570

<210> 5974

<211> 576

<212> DNA

<213> Homo sapiens

<400> 5974

gtaatacttt aagtaagaaa ttgtttgaaa taagacaata agagtctaaa aataaggagt 60 cggtgggaga gcaggagacc agagattatt acagaatcaa cctgacaata acctagacaa 120 ggaataggag gctgttcacc accaccaaga ggtccagtgc attttgctgt ccttactgat 180 aggecatatt teacettett acaacagaaa tateateaga gaetttatea aaaactagge 240 300 tgaaatccat atatacgaca ttcatagcat tttattgatc caagtccagt atttacatga 360 ctgctttgtt cattttgagg agtatatgtt tataaataca tattaaatat ggaattctac 420 actetaagta ataaagaagg tttetagaaa gaaaggaatg tetgeaatta gtttteetet aagccaggac tattgaaaac tatgccattt tgattctctg ctcatttagg aaacagacca 480 angacggaat attttaaaag tcaataatta aangggcaat cacttatatt gcccctttta 540 576 aatcccagaa ctggactttt caagtattaa cattag

<210> 5975

| ⟨211⟩ 573 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5975 | | • | | | | |
| gagatggagt | ctcgctctgt | cacccagtct | ggagtgcagt | ggtgcgatct | cagctcaccg | 60 |
| caaccttgcc | tcccgggttc | aagcaattct | cctgcctcag | cctcccgagt | agctagcact | 120 |
| gtagggatgg | ccactgcgcc | tggctaactt | ttgtattttc | agtagggaag | ggtgagtcag | 180 |
| catgttggcc | aggctgtctt | gaactcctga | cctcaagtga | tccactcccc | ttggtctccc | 240 |
| aaagttaagg | gattacaggc | ctgagccact | gtgcctggcc | taaaattttt | catttttcat | 300 |
| gtaaattaaa | gctaataagg | gccagtttta | ttctctaacc | aagacctttt | aagttaaatt | 360 |
| gatctttaac | tacacacaca | caccctgcc | caagggtaca | gttctacttt | ctactagtag | 420 |
| taactctcct | tttccacttt | aattttgagg | aaaattattt | acacagctga | cccttgaaca | 480 |
| cangnttgaa | atgtgtnggg | tccacttaca | tatatgggat | ttttttcaat | aaaaattttt | 540 |
| agagattcaa | ccatttggaa | aaacctggcg | ata | | • | 573 |
| | | | | | | • |
| <210> 5976 | • | | | | | |
| <211> 573 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | • | |
| <400> 5976 | . · . | | | | | |
| gagacagagt | ctcactctat | cgcccaggtt | ggagtgcact | ggcacgatct | cggctcactg | 60 |
| caaactccgc | ctcccgggtt | cacgccattc | tcctgcctta | gcctcccgag | tagctgggat | 120 |
| tacaggcacc | caccaccacg | cctggctgat | tttttgtatt | tttagtagag | atggggtttc | 180 |
| accgtgttag | ccaggatggt | cttgatctcc | tgacctcatg | atccgcctgc | cttggcctcc | 240 |
| caaagtgctg | ggattacagg | cgcaagccac | cgcgcccggc | ccattaatgg | gcatttttt | 300 |

taaggccact gtcctaaatc taaggaatat gaatttttat agatagtcat gattttttc 360

| tgcacattca | atgaacagta | ttaggtacct | actgggttgt | atactgggca | ggattcaaag | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| atagacaatt | catatttccc | accctcaatt | agcttaaaat | ctaatataaa | tacccatagt | 480 |
| naacagttaa | ccaaaataca | gcaatcgagc | ttcaanctgt | gaacatgttg | caaatccaaa | 540 |
| atcttaaggc | caacctccaa | taaggnggcc | ana | | | 573 |

<210> 5977

<211> 552

<212> DNA

<213≯ Homo sapiens

<400> 5977

| gcaccaaaat | acatacattc | atttatttct | cattgcagca | acaagataaa | caagtataat | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tccatggtca | aggagttaca | aatagtagca | agcccagtaa | ccttgagcat | atctataagg | 120 |
| caaataaaac | aaatatttct | ttcatagngn | gggcatccaa | ctttagataa | tctggaaaaa | 180 |
| aatcactnta | gcccctgaat | accatgatgt | gcatgatgtg | caaaatgaaa | gtatcaccca | 240 |
| aaatattttc | aaagctaaaa | agaaaatatt | taaattcaaa | tactttaacc | aaattggaaa | 300 |
| tgcaaacagt | acacttagag | tcatccttag | ccagctgttc | tccaaacaaa | agatcgagaa | 360 |
| acaaaaccaa | gaaccaatgt | aaaaaagaaa | aggtttatct | agaaaactgg | aagctcatca | 420 |
| aagtccattc | ttcttctgat | tctggtctcg | gtcagcattt | ttagaagtcc | acttttgagg | 480 |
| agcaaagcct | ttaagtctag | attaaccanc | cggtatggaa | ggctaattcn | ttccacgatg | 540 |
| acanggttct | ng | | | , | | 552 |

<210> 5978

<211> 562

<212> DNA

<213≻ Homo sapiens

<400> 5978

atcagtaaat tgccaccttt aatccatcct acagtgccct gtgaaagggt cacagaaaga 60

cagttatgac tgtatgaaaa tatgattctt gatacagaat caaaagttac tttcaatttc 120 ctttgctttt ataaagtcca cgataacaat acttaaatgc acttttttt tcctgngata 180 taattaaaac ccagtgttat ttcagttgaa cttaaaatag agtccctggt ctgaatcaga 240 ctttaaatca tactgtaaac atatatttgg tataatttat tgatcatcat ccagttgctc 300 caaaagggtt cttctgcgct tttccaattc cccttcactc agttcgctgc cagaagtgtc 360 ccaattacca gaatcctttc cagtcttttt cttaggcgat ttgtgttttg attctgatct 420 ttgnctaagt tctgnctttt tcactttccc gatctttttc tttttttatc cttctctcgc 480 tcagcatcgg atcttggaaa agcagattaa ggcctctctt cttactttct tctaagcctt 540 tttgactttt atacttctct aa 562

<210> 5979

<211> 472

<212> DNA

<213> Homo sapiens

<400> 5979

aacgggaaaa atagtttatt gaaccgtact tntccattga agtctttaaa cataaaagct 60 ntgtaacaaa catcacaatt tcacgtcatn tgccatataa atagaaccta cactgagatg 120 catgttatca acaggcatgt ccccagggtg aggctcccca cccgggaccc aacttggtca 180 gttacaaaac ggggacnaag gcgggaggaa gcccagtgtc accaggtggg accgggtgcc 240 gggcctgtgg gggtgtcctc gcagcccccc tananagggg gcgtgcggaa atggatcttc 300 ttggctgttt ccacgtcgga cttcgcgacc aggaaccgca tcttcttccc gccatgacgg 360 atcaggicca cagcinicag giagccaagg cccaggaggc igcigccati cacciticagg 420 atacngnece ceagegaeag gegeeegtng gneegttgng ggettneeeg ga 472

<210> 5980

<211> 456

<212> DNA

<213> Homo sapiens

<400> 5980

gtaggtggtg ctgtattctc tggtaatacc acattcagtg cacacttagt gggttcaggc 60 actgaccatg tgttccccac tcactgtgaa gtttcccatc aactttttag ctaaaaggtt 120 tcatccattg atctttgcct aaatcagtta ctttgttagc agttgcaaaa tagcaacttt 180 ataattetgt catteetgee actttgetag aatteeteag aatetaggaa tatgeateaa 240 atttttagca tgcatatttg attttataaa gatttgtaat attaatcaga actcctactc 300 atgtcctcaa tgatactaag acattagaat taatggtcat ccaggagaat ggcgtgaacc 360 cgggagatgg agcttgcagt gagcccgaga taagtgcctc tggacttcaa cctgggcgat 420 456 agagcgagac tncatcttca aaaaaaaaaa nnnnnn

<210> 5981

<211> 517

<212> DNA

<213> Homo sapiens

<400> 5981

| ctaaaaaaaaa | gtaccaggta | caatttttc | ctgtttttga | tttgctttgt | tttttcaagt. | 60 |
|-------------|------------|------------|------------|------------|-------------|-----|
| ttcagcaaat | gcttgttccc | ctcagcccag | ccccaggagt | taggactgag | gctgggtcag | 120 |
| agtctggagt | ggggaatggg | gtagtttgga | accacatgac | tgagtttgag | gggtgcccct | 180 |
| caccccagct | gaggtaggtg | ggtcagagtc | tggccaggtg | agaggaggca | ccccagtgct | 240 |
| tggccctgac | tctgccccct | ggacaccttc | ttcagtcagg | accccaaaac | aaggagacac | 300 |
| aggtaggagg | agagggacaa | ctggagtctg | gagccctagg | tgaggggtgg | ttaacccctg | 360 |
| tgtgtgtgca | tacatgcaca | ctcacacaca | cataccacac | aaagacaagc | ttgtgcacac | 420 |
| accatacgca | taacttggct | tttananata | ggtcanangg | tangggaagt | gaanggactg | 480 |
| gggttaaata | aggenetttg | gacggggcca | accttgg | | | 517 |

<210> 5982

<211> 569

<212> DNA

<213> Homo sapiens

<400> 5982

60 caaggttcac ggggtttatt agggagtcgg gagggagaaa acccaggagt ccccaggcca tccacattgc tccccggcat gtgacgatcc agcctggctt tctctggtcc tttctggaca 120 180 gaggctggcc aagcaggcag cagcctcaag gggagtgggt aggagctggg ggccttctgg 240 cagccctact cagaggatga tctggttggt gaagcttcgg ctcagctcct tgtgtggcag 300 aacaatcgag ttcaggatga gcacctcggc agggatccgg actcggcagc ccaggatggt 360 gatagcagge ageagettee egteettgaa gaggetetea etgteeatge gggetegggg 420 atcgttgggg ttagggtcac tgggggtacc ctccacgcgg gcccagcgtc ccacggtgct 480 tecceagece aegatgetat geagaacaca egtgtgetee tgeaaagtgg etteatggag gacaatettt teeggageeg acaeettaae eaeggtaaee eetteeeaat gaaaetttgg 540 569 gccaacacaa ccaagggggc ccnttgggg

<210> 5983

⟨211⟩ 566

<212> DNA

<213> Homo sapiens

<400> 5983

60 gaggcagagt cttgctctgt cgcccaaact ggagtgcaat ggcgcgatct cggctcactg 120 caageteeae eteeeggtt caggecatte teetgeetea geeteeegag tagetgggae 180 tacaggcgtn tgccaccacg cctggctaat ttttttgnat ttttagtaga nacggggttt 240 caccgngtta gccaggatgg tcttgaaatc ctgacctcgt gatccaccca cctnggcctt 300 ccaaagtgct gggattacag gcatgagcca cttgcccagc cagttttctc tttcaacact ttacatattt caccetttte tettettget tgegtgttet gacaagaagg etgtaattet 360 tattcgtttc ctgnataagt aagctgggtt tttttctatg gcttctttca agaatttggg 420 480

| naagatggat | ccaattgggg | gtctctaact | tactgaaccc | gggnttgggn | cngccttact | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| ttggnaaatt | ggggccttta | actttc | | | | 566 |
| | , | | | | | |
| <210> 5984 | | , | | • | | |
| <211> 586 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 5984 | | | | | | |
| gtagaatact | taaactttta | aagaacatta | atacacaaaa | ttcaggaagt | tcccttaaaa | 60 |
| ggactttatt | tttttctgaa | ctttcccatg | acgaatgtct | gactgcaaag | ttcttttcta | 120 |
| taacatggat | ttcttcaaca | ggaaagattc | agtacatgac | agtagttttc | aaatacagtc | 180 |
| ttccatcttg | tattgtcctt | tcagcatctg | ttctgccgcc | actgcggtca | gcctctatct | 240 |
| ctggggtcag | agagtcattt | aagaccctga | gactatctgt | tgaagctgcc | tgttttagcg | 300 |
| tctgttctgc | ttgttcacgc | cgtttcgtct | caaactcaag | tgcttcctgc | aattttctct | 360 |
| ttgccttctt | ctccttcttt | agcctctttt | gaactatggc | tctattcttt | tgttccatag | 420 |
| ccaactgctt | ctcaagtgtt | tccccttagt | tctctttccc | ttaaaaaaaa | atccatcttc | 480 |
| agctcaagtt | ttttccagtt | ggacctggtt | ctcttgactc | tggcattatc | taatggcaac | 540 |
| ttttaacaag | ccctggatg | gtaagtcana | anaagcttcg | atggga | | 586 |
| | | | | | | |
| <210> 5985 | | | | | | |
| <211> 480· | | | | • | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | ·- | | | | |
| <400> 5985 | | | | | | |
| gactttacaa | aaattttat | tctgtttaca | caggaccttg | tctcattcaa | tccttccaat | 60 |
| taccaaaaga | agcaggcaag | acaaactgtt | acacccattt | tatgggttag | aatgatttac | 120 |
| tccaagagag | atgcacttgc | ctaagaccat | cagctgtaga | gctgggctaa | tcccagtgca | 180 |

tgactcttcc atgaattgtg tgttaattat ttatttattg agagagggtc ttgctctgtc 240 ccccaggctg tagtacagtg gcatgatcac agctcactgc agcctcaacc acctgggctg 300 aagtgatcct cccacctcag ccccacaagt aactgggact acatgcacac accaccacat 360 ctggctaatt tttgnattcc ttttagagac caggttttgc catgttgccc aagctggctt 420 tgaactcctg ggctcaagtg atctgntcat cttgggcntt cnaanngctg gaatnengge 480

<210> 5986

⟨211⟩ 471

<212> DNA

<213> Homo sapiens

<400> 5986

gaggcagggt cttactttgt cacccaggct ggagtagtgg cgcgatctcg gctcactgca 60 120 gcctcgacca cccaggttca agngatcccc ctacctcagg ccctcaagta ccctggacta cagacaagtg ccaccacgcc tggctaattt ttgtactttt gtananacgg ggtctcacca 180 tgttgcccag gctggtctcg aactcctgag ctcaagcaat ctgcctgcct cagcctccca 240 aagtcctagg attataggng tgagccacct tacctggcca aaaaaaaaaa aaagccattt 300 tttaataaga aaaaaatctn tacctccaaa agctggtatg atatattggg gaaaaaagtt 360 ggctctggct cttanacctg cctccatttt tttttctttg aagaaattaa atggggtttt 420 atgetancaa ggneaetttt ttnaanaagn etaaatetaa aanaatggga t 471

<210> 5987

<211> 576

<212> DNA

<213> Homo sapiens

<400> 5987

aaataataat aggetttetg eeccaactaa aggaatttta ggettetgea acaagtggag 60 gaggeatttt gaagatggga eacaaagaag tettettet eeagateeag aagteaggee 120

ttgtaagaat tcaagccaaa aaaagttcat ccatgggaaa aacggttctt ctatcatcca 180 gcacgtattt gtgccaacag agctgaggga cttgagtaat tcaagaggct aggggttggg 240 gggcagatgt gtccagtggc tcccacagcc ccgccgtcct gaaagtcacg ccagttaatg 300 tgcctcgggg tggatcagcc ctcccgacag atgactacta ggaaattaat ccccagttaa 360 taatgtgctt tggaccaagt aagtcaagat tatttttcct acaattatac aaagatatgc 420 ttttccagaa gggaacttct ggaaaaagaa caaataacac tatgcttaaa atattattca 480 catattagag aagaaaggaa cettaaaatn gengaagaac etggattnen tggateeegg 540 576 ggccaaccct tggacatggc tttgtgtgan aacaaa

<210> 5988

⟨211⟩ 582

<212> DNA

<213> Homo sapiens

<400> 5988

acaggaaaat ttaatagctt ctttttaatt cataaaacta gatacttaca ctgccatgta 60 gtcaaaaaat gcaccatcag tgacctcaga tataggcttt tttaagattt ctagatctgg 120 aagagactte cagteaacag aagaceaaga aggaagatee eteaacaaaa agtateteea 180 cagaattgga tetettacag tttcatteca ataatgattt gtaetteeca aetgacaeag 240 atcatgaggt gaaagaaagg acaaaatata tagctgtaca tcaatctgaa acagaagaaa 300 gcagcaggta ggaaaaagga atgaagaaaa tagtttttgg gtgataaacc acataatcaa 360 caaataaata acaaaaggtc aactgactag tatttttaat aactaaatct accattaata 420 attaaatcta ttattttcct gctatcagnc aaaggatcat aactggacca ttttagtttt 480 cgaagttggt naacaattna attcttggaa ccacctggaa cattcctgga aaaaccaacc 540 ctggcttggt tatttttcca gcaaaatcnc cagttccttt ta 582

<210> 5989

<211> 572

<212> DNA

<213> Homo sapiens

<400> 5989

ganatggagt tttgctcttg ttgcccaggc tanagtgcaa tggcactatt ttggctcact 60 gcaacctntg cctcccaggt tcaagngatt ctcatgcctc agcctcccaa gtagctggga 120 ctacaggcac ctgccgntat gcccanataa tttttttttc tgtattgtaa gtaganacag 180 240 ggtttcacca tgttggccat gctggtcttg aactcctgac ctntggttat ccaccagcct 300 nagcctccaa aagtgctggg attacaggcg tgagccacca cgcctggccc atggccatcc tgtcacacct ttaactccat ctgcttctcc tgcttcccct gngctatttc aaatcctana 360 420 tatcctatca ttttatctat aaatatttca gtatacagct ctaaaggatt taaagatnen taagagtnca atatcattac tacnctttaa aaaaatctca ataaattcct taatatcaaa 480 catatgggta gnggtcacaa tttcaatttt ccataaatng gggttttttt tacatttggg 540 ttaaatangg tcccaactgg ttgggacngg tn 572

<210> 5990

<211> 547

<212> DNA

<213> Homo sapiens

<400> 5990

60 aataaataga gacagggtet caccatgetg accaggetea actecaacte eegggeteae acaatccttc caccttggcc tcccaaagng ctgggaccac aggagtgagc caccacgcta 120 ggccaaatag tagtttctta aaggacagat aacattttgg aatctgaaac cacatcaatc 180 cactttttta ctgntaaaat ccattgctat gtctggaatt ttcaaaggat cttttgcctt 240 tgcttgattt tgcaacatca tgcattggtc atttgcaaag cctagattta ctgagttatg 300 cccatcttcc aaataacata tttcattaaa caacatttta aaatattgca gtccttaacc 360 420 actgatatca taaggaaagt cttttaagta ctaggaagct gcaaactcca gctggcaact ttttaaaaat tctaattttc acccaaattt tatcactggn aataaatact ggcagtggtt 480 540 tectaaaagn geaageteet tnattteaag aaaatntgee aatetaaggg gnaaaneeta

| nctggta | | | | | | 547 |
|------------|------------|------------|------------|------------|------------|-----|
| | | | | | | |
| <210> 5991 | | | | | | |
| <211> 604 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | , | |
| <400> 5991 | | | | | | |
| acaatgcaat | tatttatttt | acaaggagat | tctatacatc | agggaggcat | cttgaagtac | 60 |
| aatacaccag | gctttcattt | cttctttaca | ttatgattgt | gagtttccat | ataagttggt | 120 |
| acttacatgg | aaagggaaca | caaaatccat | ttttatatac | ataaaaacaa | aacacccaaa | 180 |
| gagacttgac | ccccaaaatg | tcttgtttca | cttgaaaata | acatgaatga | gacgaaagat | 240 |
| gaaccagatt | acttggtgac | gcacagaagg | cgaacaagta | gctcaggaaa | tcaaatcctg | 300 |
| tttcaagctt | ggcacattaa | gggtaagaaa | ggtagtgaaa | gaagggttcg | aaaatatcat | 360 |
| ctcaagccac | aaaaaatctg | gcagaagaca | gcctccaaat | caataagata | gaatggttag | 420 |
| aagtcaagtt | agaagttatt | gngtggctac | cttatatcca | gacctctaat | agactgagtg | 480 |
| gaattgncac | ttctcttncc | tcagntattc | caaatggtag | taaacttcaa | ggagcttggg | 540 |
| cttgatgact | cacacctgnt | ntttnaaact | tttggaggċg | aaaatggcna | attccttgaa | 600 |
| nccc | | | | | | 604 |
| | | | | | | |
| <210> 5992 | | | | | | |
| <211> 592 | | | | | | |
| <212> DNA | | ſ | | | | |
| <213> Homo | sapiens | • | • | | | |
| | | - | | | | - |
| <400> 5992 | | | · | | | |
| aatgattgaa | canaatttat | tggctgtctt | tgagtgtctt | tggtatggct | ttggcagggc | 60 |
| tgtctgggtt | cctccgcttt | gcttgttttt | gggctgctgc | tgcagccttt | aaggctcttc | 120 |
| ttcgcttctt | cagcttttga | gtctcctgga | aaacccgaat | gcacagagcc | ttcttggtca | 180 |

ccaactata cttctaaag acatcatant tggtgttacg gaggtttttg agcatctttt 300 tcctctggtc aatgctcatt agcagatagc cgtttgtggg ctttgncctt tcgatgttc 360 tccaagtgtt cttcataact gcggatcttg acagacaagg caataactga aaccacaaac 420 cacagaggat gatagttggg cacagangaa ggaaggccca gcctggttta cgtttaaga 480 actcaaggaa taacatcacc aatgctctgt caacttntta taaatnccaa tcactctgaa 540 attcaagaat tcaaagctta tcttaaacat taccttccct taaaagcaaa aa 592

<210> 5993

<211> 594

<212> DNA

<213> Homo sapiens

<400> 5993

cttattttaa ttgtttgaaa tttttctaga gccaaagcag ctctttaaag aagttgtttc 60 ttccaaagaa caaagccagg ttaatgacat tcaattctaa atgatacatt ggaattgtgc 120 cttttctacc acactggatt aaataaactt gtcaaaatat ggttttgtca ttttctgaga 180 cacttggtaa tttgctgttc tttctttcat gtgcccgtta gtacatttgg ccgactgacc 240 acctgtaaca gggaggtctc atgtttgtta gtagatacgc aggtaaggaa acttgaattc 300 atcctctcct cggctcaggt ctttgctttt cttttaatat atgcatataa aatagtaggc 360 atttgattct gcaaaggcac tagactactt gaattaaaca ttctgtccag agggataata 420 ccaggettte etttteetea tetgtagtaa agttteangt eettgacaga aatagetggg 480 actattccaa atttgcttca ggcatnccaa tggtgacaaa gggaancgaa gtcatgaaac 540 tctgttcctc ctatttccat caaggggggc tctctactat ctttangaag gang 594

<210> 5994

<211> 589

<212> DNA

<213> Homo sapiens

<400> 5994

| gatctttta | aaaacaattt | attttttcc | aatgtaagaa | taacaagttt | aatattgaaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| atctgaaaaa | ggcaggaaga | taggaagaag | aaaaatatca | accatagtcc | taccacctaa | 120 |
| agaacactca | ctgacagtgt | ggccatgctc | attctttaag | ccttaattta | ggtcccattt | 180 |
| ctggtgtggt | gccttccttg | aacttcctcc | cccagatctt | ccatgtcata | tctgtaccac | 240 |
| tcagttgtac | atatcataca | cttttgtgta | taatgtgatg | tatgtcttat | gtttccaacg | 300 |
| agattgttac | atcttcgaag | gctgcaaaca | tgagttgtac | ttgttagctt | accccaaaat | 360 |
| aatacctggt | ataccggacc | caatatctgc | tgattgatct | aacctaaatg | aatacaaacc | 420 |
| atttcagaaa | aagatataca | atagaccaca | tatccaggtc | atgaaaatta | agctttcang | 480 |
| tcacctactt | agtgactatt | gctcttgacc | ctagactctt | ggaaggccat | tnaactggcc | 540 |
| ttttttcaca | ccaaactggt | aaaaggggac | tggtntganc | cggatttcc | | 589 |

<210> 5995

<211> 342

<212> DNA

<213> Homo sapiens

<400> 5995

| ctgagatgta | gttncactct | gtcgcccagg | ctggagtgca | gtggcncaat | cttggctcac | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tgccgcctcc | gtctnctggg | ttcaagtgct | tctcctgctg | agtagttggg | attacagtca | 120 |
| tgcaccacca | cacctggctt | atttttgtat | ttttagtana | aacagggtnt | cactatgtta | 180 |
| gccaggctgg | tcttaaactc | ctgacctcaa | atgatatgcc | tgccttggac | tcccaaagtg | 240 |
| ctgggattac | nggcntnaac | cactatgacc | agcccggaca | ttaactcaca | atggcngggt | 300 |
| tattgncctt | cctctatgcn | aacaattccc | accagentea | ca | • | 342 |

<210> 5996

<211> 577

<212> DNA

<213> Homo sapiens

<400> 5996

cttctttaat atctagcaat aactgaggtt cacggtgttc atccacagct ggaagtccag 60 ttattatttc tagtaaaacc acaccaaagc tgtaaatatc agatttgggt gttatttctc 120 cacgcaaagc ttctggtgcc atataagctg ttgttcccac aattctgcta gtcatgactg 180 240 tctgggcaaa cttctcanaa gcccgtgcaa ggccaaagnc agatatttta gcantaaaag 300 cttcatccag taagatattt genettttaa tatetetatg aatatgatga ttttcatgta 360 gaaaattgat gccattagct gcaccctgag caatcttgca tctcatgtgc caagaaagtg 420 gtggagtacc atccaagcaa gagagtctgt ctagcantga accgttaggc atgtaaacat atactaagca gaggtcatct ccatcacttg agaaaccaag tagttctact aagttttcat 480 gttgacactt tgccattact ttnattcttg atcaaactng ctggttcaag tctttagtag 540 nantgncaac ccattggttg caagcttntt actggnc 577

<210> 5997

<211> 599

<212> DNA

<213> Homo sapiens

<400> 5997

gagttatata tgtatatatt ccgtgttcgc ttgtacagga ggatttacat ggctgtataa 60 agatggctag gggcgccgcg ctcttctggg gcgctcacgg tgacaggctg gggttaaaac 120 180 tggctgcccc aggagaagcg gaggcctgga attaaatacg tttcggcgca ctggatttaa ataagtttcc tgaatataca aaggtggggg ccacgagttt gctgccagtc atcgaggaaa 240 300 catttagett tecaaaaata tgetggttte gataaataga ttttageete tetgetatag 360 tttttttttc ttttaatttt agaaataagt ttatatgtgt gatctgtttt caggtggtac 420 agggagggaa ggaagggcaa ggcagtagct ctcagctctg cactgtccta gtcaggtcct 480 ttgcggaggg ggcagcaggg cccacgctgt cgtggagttt gcgcacatgt ttctttaaag 540 tcaaaatttc ttgcaaaacc cttttgccgc aagttggccg gtnaaaatat agtgagccgt

| tnaacacctt tgccggaca | a ccttgcaagt | nnaantttt | nggcttggca | ttttncgga | 599 |
|----------------------|--------------|-----------|------------|-----------|-----|
|----------------------|--------------|-----------|------------|-----------|-----|

<210> 5998

<211> 543

<212> DNA

<213> Homo sapiens

<400> 5998

60 ctttgacgga gtcttgcttt gtcgcccagg ctggagtgca gggtcatgat cttagctcac tgnaacttcc gcctcccggg ttcaagtgat tctcctgcct nagcctccca agtagctggg 120 180 attacaggtg cccgccaccg cacctggcta atttttgtat ttttagtaga gaaagggttt caccatcttg gccaggttgg tctcaaactc ctgacctcgt gacccaccca ccttggcctc 240 ccaaagngct ggcaactgct tgattttaat gaacaaaatg taagtctaca tcaacttcct 300 gggtcagttc actaagccat tcattcgagg tccacatcat gcctctataa atcccttcct 360 tacctagggt tatttctgag ttggaaaaag caaacanacc cactgctctc tcctcttgtt 420 ccaagaagca nanttaaaaa gttgcactct gccttgaagc ttnaatgtta aaggaaattn 480 ggtcttanaa ggttattcct ctttataaca tcccattaag tgnccttngg gggagttaan 540 543 tnc

<210> 5999

<211> 279

<212> DNA

<213> Homo sapiens

<400> 5999

ctgcagtttg aatttatatt ttattatttt gaaatacaaa aatttaaaaa catttcaaaa 60 tacaccagta catgtttgtt gtaaaaattt cacctaggag gatataaaat agaaaagccg 120 aatattcctt ctaactctcc cctctacctc aattcccttc agaggtaaca cagcaaaaaa 180 aaaactgggg aaaagcaaac aactttccag acctctacta ttctaaaaca caaagagcat 240

| tacagcttgc | tatgcatttt | ttttttggg | ggnnnnnnn | | | 279 |
|------------|------------|------------|------------|------------|------------|-----|
| | | | | | | |
| <210> 6000 | | | | | | |
| <211> 548 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | • | | | |
| <400> 6000 | | | | | | |
| ggagacgaag | tctcgctttg | tcacccaggc | tggagtgcag | cggcatgatc | tcggctcact | 60 |
| gtaacctcca | cctcctgggt | tcaagcaatt | ctcctgcctc | aacctcctga | gtagctggga | 120 |
| ttacaggcat | gcaccaccat | gcccagattt | ttctgcatta | ttattattat | tattatttgt | 180 |
| ttttagtaga | gacggggttt | caccatgttg | tccaggctgg | tttcgaactc | ctgacttcaa | 240 |
| gtgatctgcc | tgtctcagcc | tcccaaagtg | ctgagattac | aggcatgagc | caccatgcct | 300 |
| ggccacaaac | atttatttac | tattttgagt | atatgtttaa | agcatccaag | cacattttat | 360 |
| ccaattttaa | agatatatta | tccatgcttt | aaaacttttg | gaaaatattt | taactcagag | 420 |
| atgtctacat | tctctggatt | tttcatatta | attcaatatg | atgtacagta | aaggaattta | 480 |
| atggatcacc | tatattcatt | ttcctgcttg | ggctttaagg | nacaaagaca | tttcggagtt | 540 |
| naaccggg | | | | | | 548 |
| | • | | | | | |
| <210> 6001 | - | | | | • | |
| <211> 536 | | | | | | |
| <212> DNA | | | | | | • |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6001 | | | | • | | |
| atttaccaat | gtcatgtatt | ctgaacaaag | gcaaaaaata | caaattccta | ccattaaact | 60 |
| ggcttggttg | ttgtttgggt | tggagtagct | gtgggggctt | ggggaagggt | gtcgtttctt | 120 |
| tctagtagtc | tcatgtcgct | ttaggtcagc | tgggctggct | tacacgcgct | gtgcggtctt | 180 |
| catggagatg | ggagctctgt | gtgtcagcac | aggaagtggt | ctcccagcgt | tcagcctgaa | 240 |

gcagcccaag teetgtaggt gettgeegte tetgaageee caggaacate agtgcaagaa 300 ggaagagate getggcaaag atgacteea aggetgttet eegetetggt gggacaacet 360 gggtgetgge eecaagggge teetecagag agatgtgtgt gacetgeagg tgtaagtgge 420 acetgcagag eeaggttetg egtgaaagaa gangagatet gaagtgeetg eeacetttge 480 etgagetgga aaagageeea aaacttgget ggggateeae eacttetttt ggteen 536

<210> 6002

<211> 552

<212> DNA

<213> Homo sapiens

<400> 6002

cagticattg caatttattt aatttaaaaa taaaaacaga aacaaaaacc aaaatgaaac 60 aaaaatcagt ttccaacgaa aatacaaaca ctttgggtgg ttatccagct tgtctttccc 120 ctgtaggctg ttctgggctc aaaccaatca aatgagtgaa aaccaatttt gacaggagcc 180 ataaagcatg ttgcaccaat taaattacac caatatatta ttataatacc tttgaaatgc 240 ctttcagacc aataaataaa aaagacaaat tcaaataaaa aagtcaactt tttattacca 300 aaaaaaatag aaattaaata aaagtcacaa tgtggatttt ttttttttt taatgtgcag 360 tcaagtttct ctctttttt cttctaggaa tgataccatg ccagtaaatc cctacagaac 420 480 atttccagtt tggcaacaag cagtcagtcg atcattcaca tttgtactca agacagcagg cctgggcaaa actcgcctga atttcaccct gaaaagtgct ccccatcatc tgaagaaaca 540 552 ncacctggta an

<210> 6003

<211> 554

<212> DNA

<213> Homo sapiens

<400> 6003

aaaggtattt ggctctcttg cccttctgcc ttctgccatg tgaggacaca gtattcctcc 60 ccaccatgag gggagccatc ttggaagcag agagtggcct tcacaggcaa cctctctgat 120 cttggacttg ccagcctcca gaactgtgag aaataaattt ctgttcttta caaattatgt 180 atttcagata ttttgttata gccacacaga caaattaaga caagcaattt cttgtgccaa 240 gcattgaact aggatttggc actgaataag caaaatcctt gctatgacaa agccatcagt 300 ctagttggag aaacaaaaga caactgaagt aatcgaataa gcattacatg ttgtgtgata 360 acaaggacta ttgaaaaaaa tatggcaggg taagagatta tagcatttgg gagtgttgat 420 gggggtatgt tctgagtgta acagagaatc acagagaggt ctaaatcaac ctggggangg 480 540 aatgaagact tntgagaaga gaaaacactt gagcataagt gggatagtcc aaataatnta aggatgggga gata 554

<210> 6004

<211> 546

<212> DNA

<213> Homo sapiens

<400> 6004

attagaaagt ttattgcatt aatctataaa ctcatttggt gatataaatg acaatgtagg 60 ctaagaacga tgaaagttta tcatctttgg aaaatagaga tatttcaaca ctgaaagcat 120 tttttgtttg tttgccacaa ccaagtaaac cctaatgtat tttgattttt ctttttaaaa 180 atatagattg caatteggte atateaaaat gaageetaga eeaaataetg aactageata 240 agcagaccca gtgttaggac atcaatatta acaggactct aaacgggcag tttgctgtac 300 atctttagtt aataaacaag caaacatcca taccacgtaa ttcacacttg catatgcatg 360 tacactttca tgatgtgaag cctttaagac caaaatctct cttaaacatt cagcttgaat 420 aataaagaca tgttgcctag agatagaaaa ttcattattt taaaaaatat aaccttaaaa 480 cttgaatttt tatganttta ttttaagcnt aaagnggnet actaatattg geeccatttt 540 546 taaggg

<210> 6005

<211> 544
<212> DNA
<213> Homo sapiens

<400> 6005

aacaatattt gtaccgtttt tatttgtaaa aataaccatc tgaatgcatt tccatagtat 60 120 attacagtta agtacttcat tacgttatta gagcattcag tagttgcaaa agtattaaac tgtgcttgag aagattcaga ttgtttcaaa gtcattcact gaactaaaag tcattttccc 180 240 catttttaca gtcatgacat ttaccagagt cattcaactc caatttacat aagaaaacat tatagacaaa atcccactga aatcatcaaa caatatttta tgctgttaca aatatgttat 300 360 gcaaaatata acactggcac cagatttgta tcatcgtgct ttacaaagat atattgcaca 420 tgctagagca taaaatatgt agacaaaact accaaataaa agatatttgc attgaatttt tagatcacat aagaaacgca tagaattaca ttttatacaa cactcagatt ggcctatctt 480 aaaatgcttt tnccctataa tactggccta agggttaaag gttcgtaagg acgaagcctt 540 tntc 544

<210> 6006

⟨211⟩ 545

<212> DNA

<213> Homo sapiens

<400> 6006

gcaagaaatt attgtctct tatctcatat atagttcact ctttgcagta caaagtgtta 60
aaatgtcaaa caaaaataaa tatcaatgtt acagtagcta gaatattcaa taaaatagat 120
ccctgccatt cttgattgaa atgttcagtg agacttaatt tcatttggat attattttcc 180
agagatttgc gaagtctcat gttcctgtta ttgcagctca tttctagggg gtggtaaaga 240
tggggtagtc tctcttccca gacaaaatgc tgggaggag tgggatggt ctggggtgg 300
ggtggatctg aaatgccagt atagtcacga gatcttcagg atgtgtattc cttcattacc 360
aggtagcaga gctgtagtgt ttattggtcc taactgtggc atcagaacac tccccatctg 420

| aagagtcaca | gtccgattct | tcaaactgca | tggggttctc | atagccacgt | tccttcacac | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| acagcttgcc | cagagacatc | tgagtcttna | caccgggcac | cggacacttc | ntggcaaaaa | 540 |
| nnccc | | | | • | | 545 |

<210> 6007

<211> 537

<212> DNA

<213> Homo sapiens

<400> 6007

| gactggtgcc | aaatgttcac | agcagcttta | ttggtaacaa | caacaacaac | aacaacaaca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| aaactagaaa | caacccaaat | átccatctac | aggcaaatgg | ataaacagtc | tgnggtatat | 120 |
| acatacaatg | gaatactgtt | gagcaataaa | aaggcataaa | ctattgaaac | atgcaaaaaa | 180 |
| tggataaatc | tcaagataat | tatgttgatg | gaaagaatcc | agaccaaaaa | aagagtacat | 240 |
| attatatggc | tccatttata | taaaattcta | gaaaatgcaa | actaatctac | agagacagaa | 300 |
| agaagatcag | cagttcctta | gaacggagaa | tgtaggtagg | ggcacaagag | agggattgca | 360 |
| acgtgatttc | tccaaggggt | gatggatgtt | tattatcttg | atagtggtga | tggtttctcg | 420 |
| agtacacatg | tncataaaaa | cttataatat | tggatacatt | aagtgngtag | tttactggat | 480 |
| gtaaattccc | atcaacaaag | gtnttaaaaa | tggaaaatna | aacaaatcag | aagctgt | 537 |

<210> 6008

<211> 546

<212> DNA

<213> Homo sapiens

<400> 6008

aattcagttc caggaaccct cccacaaggg tgtttaaaaa ttccctgtgc ccagagtaac 60 ctaccgctct actgggaaga gcacactgaa atgtaaaaca caggagccag acctttccag 120 ggaatggagg caacaccaag gaaggccttg gaagaggtgt tggctgtctc agcagccacg 180

ccctccgctt ccttcgagcc agagcctctg tttcatttgg ctcttttgcc cttgcctcat 240 gtgactcagt ggctgctgtg gtctgaatgt ttgtcttccc tccaaaattc ctatgttgaa 300 atccttacct tcaaggtgtt ggtattagga ggtggggctt tggggaggta attaggtcat 360 gaggatggaa ccatcaggaa tgggattagt gccctctaag gcactaagaa aaggctggtg 420 ggctagactc agtgactcat gcctgtaagc ccaacacttt gggangcttn agtggaagga 480 tcatttgang ctnggagttt gagaccnanc tggacacctt aaaaggaccc taatntttc 540 caaaaa

<210> 6009

<211> 500

<212> DNA

<213> Homo sapiens

<400> 6009

gagacggagt ctcgctctgt tgcccaggct ggagtgcagt ggcatgatct cggctcactg 60 caageteege eteeegget caegecatte teetgeetea geeteeegag tagetgggae 120 tacaggtgac cgccaccaca cctggctaat tgtttttttg tatttntagt anagacgggg 180 tttcaccgtg ttaaccanga tggtctcaat ctcctgaact tgtgatccac ctgcctcggc 240 ctcccgaagt gctgggatta cagcctgatt tttctaaaat tgaacccaag agttagaaca 300 aaacaggatg gaatctanaa ggcagactgc gactgntcta agaaatctcg tgtagaagca 360 gggatnacag gcatgtgcca gtctccctna aaactgggcc cacttgaggg aaactcattt 420 ntcagcatgn ggggctttat taattaacct tnttggaaac tgactggncc agangagaca 480 500 caccctntga aacnggagca

<210> 6010

<211> 312

<212> DNA

<213> Homo sapiens

<400> 6010

attttcaaaa acaactttat tcatgacaca tattaaaaaa aaattcccac ccctggaaat 60

gagetaaaaa aataaacaaa atccacctcc cacctccctg ttcccacttc ctcccattcc 120

180

aaaaacaaaa acacccctaa accccccaaa acaaggnagn gcatttcccc agggggaagg 240

300

ggaatttaca ctggagccgn tgggagcgga acgganatnt tccggntaca gaaacctgca

312

60

480

531

<210> 6011

aagaaagacn ct

<211> 531

<212> DNA

<213> Homo sapiens

<400> 6011

gagacagggt cttgctctgt cacccagata gagtgcagtg gtgggatcac ggctcactgt agectecace teccaggete aagtgateet tteaetteag eeteectagt agetgggace 120 180 ctatgtcact atgttgccca ggctggcctc caacccctgg ggctcaagca atcctcccac 240 ctcagtctcc caaagngttg ggattacagg tgtgagccaa catgcctggc ctgtttctgt 300 ctttactgnc cacatagcca taccttcatc atcatataca gaaagnggca aatcataatt 360 aacgggagag taataagtat tttggggaaa aacagggaat agagaacctg gaacattatc 420

ttccaacaga gaatatccac atgaaaatta aaggaaatat agctatatgc atgagttcta

tcttcttana ncttntagna tccctaacat tancttcctg nttggtggtn a

<210> 6012

<211> 555

<212> DNA.

<213> Homo sapiens

<400> 6012

cttagaaagt gagaatttgt aatttcttta ttaaacatta cattcagtgt aaaggcttta 60 accatcataa tcaccatgat ataatatgtg agtatgtata tgtaaaaaaa tacccattga 120 acataaaatt atgittigaa atciatgcaa catgaaatat agittgatat aaaaaaccca 180 actaatcaga aacatgaaaa ccagtatgtt ttaataaaag cctgttgctg gttctggaat 240 aactgtggca tgcatgttcc tagtcatgtt ggacttctcc ttcagctttg attggagtag 300 tgtgtgttcc acaatgccaa ttctaatgtc catctctaca gtttcttgct tcagttttgt 360 taagetetgt ttaatettea ecaaaggage accateagte atgetgetge cettttette 420 cattictign titaccitit ciaatictic cataaccica gagaggagic iggitcitic 480 cgcactcctc cattincctg nitggnatcg nicctitgcc tactiancit ggctigactg 540 555 cccnaattct tgacc

<210> 6013

<211> 555

<212> DNA

<213> Homo sapiens

<400> 6013

gagatgaagt ctccctgtgt tgcccaggct ggagtgcagt ggcccaatct cagctctctg 60 caacctccgc ctcctgggtt caagccattc tcctgcctca gcctcctgag tagctgggat 120 tacaggtgcc tgacaccacg cccgtctgat ttttgtattt ttcgtagaga cagggtctca 180 caatgttggc caggctggtc ttgaactcct gacctcaggt catccacccg cctcggcctc 240 300 ccaaagtgct gggattacag gcgtgagcca ccgcgcctgg ccttgcatgc catttaaact ctctcaatct cacaccctgt cccagtctca cactttctgt gtctcacggt ggcatgcaat 360 tacccaatac aacctgtcaa gtacacactg ttttatagta tttcatagta acacccagtc 420 480 gcctgtccag cgacaaccat ggaaggtcac atacattctc tacaagtctn ctggtgtcac acgcatctga cacattccct tcatacacaa gtctgtccct gtacacaaac gcacgcaacc 540 555 atttctgggg naaan

<210> 6014 ⟨211⟩ 543 <212> DNA <213> Homo sapiens <400> 6014 gagacagcgt ctcaccttgt catctaggct ggagtgcagt ggctccatca tagcctcctg 60 120 cagcettgat gactgtgeta gagecaecet etcaetttag ceteetgagt agetgggaet acaggtgctt cccactgtgc ctggccaatt aacaatttca tttttatttt tagtagagat 180 240 gagateteae tatgttgeee aggetggtee tgaacteetg ageteaagag atecteecae cttggcctcc caaagtactg ggattacaaa caagagccac tgtgcctgac caggctctaa 300 gattgctaat ctggctatag aaggactaat gttggccacc tcagagacat tcattcattt 360 420 taagaaacat catctttcac tgaatataat atgacatttt ttagaaggca cagcatatat 480 gtaccataaa gagccatctc aactctgaca taaactttgn tatcatacag catgnttatt 540 ttatgcgaat gaaagaactc ttttagatgg tttagacncc aatntntcat atnacccct 543 ggn <210> 6015 <211> 530 <212> DNA <213> Homo sapiens <400> 6015 gagacggagt tttgctctta ttgcccaggc tggagtgcaa tggcacaatc tcagctcact 60 gcaatctcca tctcccgggt tcaagcgatt ctcctgcctc agcctcccaa gtagctggga 120

180

240

300

360

ttacaggcat gtgccaccac gcctgactaa ttttttgtat ctttagtaga aacggggttt

caccatgttg gccagtctgg tctcgaactc ctgacctcat aatccgcccg cctcggcctc

ccaaagtgct gggattacag gtgtgagcca ccacgcctgg cccctgattt taagcaatac

ccagcttact tggattttgg ggtgaagtca gtgctgagtc tcccaactct gttggcactc

caggggtggg acagacactg tccctgggtg cagaggccct ggaggcagca ctgccctttc 420 ccccaaaggc caggctctga ccttgagagt ggtgggagtg ggtgatcctt ctggganggt 480 ggacttccaa gaacgntggc tgttngggaa ccttgantgg gaanaccann 530

⟨210⟩ 6016

<211> 560

<212> DNA

<213> Homo sapiens

<400> 6016

agegteaage acageaacet tttattaact gtttteagae acagataaga aacattgeat 60 atattgcata actgagcact ctcaacgagt tgaaattaca cccgtttcac tgatggagaa 120 180 actgctcaca gagaggcagt tttaaaccaa gatttaatct ctacattcta aagagaaaat 240 caaatttacc atcaagcatt acaaatgagt ataatgagtt tcttccatga actccgcaga aacacaagca attgcattgc aatctgacat tccactcacc cctgcttttc cgatattgtt 300 gaaggcaaaa acatcctttg tcctggaagt tcaccattca attttagcca tctgcagcta 360 cttaaattta aaataattaa aatctaaaaa taaaaattca gttcttcaat ttcactaccc 420 atattcaagt gotcaacagt cacatatgac taatgnotat tggattggtc agottggota 480 tagggatate tteateattt eeaaaaggtt taatggacaa geattggnna aaaateettt 540 560 gccccaaatt nttgnnggnt

<210> 6017

<211> 557

<212> DNA

<213> Homo sapiens

<400> 6017

ggtctactga agaaatccta ctttgtgata tcctcatgtt aatatcagca tactctttct 60 gagcaaataa ctctagtgca aagcacagta cctggaagta tcagaattaa ccagtaatgc 120

caataatgca taagaattgt taatgagtaa ataaaagctg attatactat atttattttt 180
tagtcagaat ctctcacatc aaggatcaca atccacttcc aagcaatggg taaaagggtg 240
acagttatct tctgaagatt cagatgcttt aacttttggg ggaaaagtat taccccatat 300
gcttcttata aagggctaaa atgtaaaaac gcatatacag aacttaaccc ttaactagaa 360
agaaattatt attaatggag tgtcattcct aaaaattaca caatacatcc acactaaagg 420
ctgagaataa taattctgaa ggttttaacg actattctct tattctgaga ctcttttttg 480
ggnttttagt ggagacaggg tttcacccgn gttggncagc tgggtttgna ccccncacct 540
canggggaac cnccccc 557

<210> 6018

(211) 541

<212> DNA

<213> Homo sapiens

<400> 6018 .

ggtagagaca gagtttcacc atgttggcca ggttggtctc aaactcctga cctcaagtga 60 tetggetgee ttggeeteec aaagtaetgg gattaeagge atgageeace atgeeeagee 120 aaggagtcag aattettaaa tggettaete agttgtatat atagttgagg geagaaataa 180 atttattaat gaaatctatg acaaaaacaa accaatatcc agaagactat gggccaccac 240 cacacattag tectaettae agggaetggt etteaaacat tatacaatag etttetteaa 300 aatcaaataa aagatttgta ggcaaaaaca taccaggtat tctgaaataa tatatgtaat 360 gcctacttca ctatgggata tgtgagtcca tcaataactg tcagtttcct ccctagttta 420 tccatatatc ccctaaatgc atgcccctgt tatgtcaaaa caattttttg agttgccaaa 480 attttttaca tgccaaattt cccaaacngg gcntttntta aanattgcct tggggggaaa 540 541

<210> 6019

<211> 530

<212> DNA

<213> Homo sapiens

<400> 6019

| 60 | taaagttgag | ttcacaagaa | cctttgcaat | tattgatctt | gaagtctttt | acattcatat |
|-----|------------|------------|------------|------------|------------|------------|
| 120 | ggccacgtct | aatattaagg | caaattgctc | ggattgcaat | aaaacaagca | ataacttaca |
| 180 | aaaggtgtag | ggtgtcaata | atgataactt | tagttctggg | cttgcttcat | agcatctgga |
| 240 | tattacacag | ttaatgttcc | tctttaaaaa | gatctgtggg | tgtggctatt | agtggaagag |
| 300 | tgatgagaaa | agctaaggga | gaaaaggaag | caaaaggagg | tgagtgagga | ggtctggggt |
| 360 | ctttgcaatc | tccagacctt | tttcaggcaa | ttaatttgtt | cttcttagaa | ctcatattag |
| 420 | caaaacccag | acaaactccc | ccttaaaaat | gtatttaatt | taactcatga | atgagtattt |
| 480 | tttggtaagc | gcatgcccat | cttggggaca | tgagcattta | aacctaggga | gtcagctcta |
| 530 | | aancccngcc | nctggtcnna | ttttccannt | ttcaccctgg | acagaagctt |

<210> 6020

<211> 507

<212> DNA

<213> Homo sapiens

<400> 6020

| gttggcaaag | actgcacatg | ctggaaggta | tttccaatag | gagcccctgg | ggcaccttca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| atattgggct | ttgaaaaaga | tggtggcatg | cctgtttgac | caagaggttg | ctgtacgcca | 120 |
| tggaagggct | gtgggaatga | agactggctt | gacagtggta | ctggagctga | aggctgttgc | 180 |
| tgcagcattt | gtgactgggg | gtcacccaac | gggttcatga | ttggtgatgt | gatgggaaca | 240 |
| ggaggcatga | agttttcagg | catcttcttc | tttttgggta | ctctgttcaa | agctggaggg | 300 |
| tcattccaac | cattctgagg | acctgttctt | tgggacgcag | gcagctcact | ggcagcaggc | 360 |
| agtgtacctg | ttgttccagg | aggcagtgca | taagctgaag | atgatggtgg | agctcctggt | 420 |
| cccgccatgc | tggaaggatg | ctncagagga | aagggggang | aaggaaagaa | ntancagget | 480 |
| ggangtangt | gaaaangcct | ggtgctg | | | | 507 |

<210> 6021
<211> 546
<212> DNA
<213> Homo sapiens

<400> 6021

60 agagaattga tgcatttgag aaaagatgaa gcagatagat atataattgt tcacagtggt aaattatagg tggttttctc atattttatg tcagtttctt gtatatcaaa aaatacattc 120 180 atattatgag acacaggaat ctttacatcc aaaataattt gatacagatg ccttaacatt gctgaatgag acaactttgg aaagattctt gttttgtgat teetttttae eetctaagea 240 300 cagtgctttg ttaacactgt gtgtgtagta aatgtgtgtg ctgcttaagg taaagaattt ctagtaaact aaatgcccaa ggtgactgcg tgattccatg ccagacagga aaaagcagtc 360 atgetttttg cecetagetg aaegtttgtt tteeceacaa aetatgtatt cateeacaga 420 atagtgaaat atgctagatc ctagtacaag acaagaattc aatctaaaaa atctctagat 480 ngataattaa aatattgeta ggtttggtat teacaaaact ggagateetg atggatantt 540 546 tcctcn

<210> 6022

<211> 548

<212> DNA

<213> Homo sapiens

<400> 6022

gaatttaaga ctttacttta ttcagcaaaa tcatttattt acacaatggg gaatgctggt 60 ttgattttgt caatgaaata aaaacaaaat gaacagagac aatactgaac tgtatatata 120 ctttgtatca gagttgacca actgtttcct tacctgtatc aggaacatca agagcgacag 180 tatcacaagg acactggttt aacaatacac cacataggtc cagtaatacc ctgggaattt 240 cccaatgcaa tcaccaactt tttcttttt tataaatata taaaaaaaca aaaagtcagc 300 aaaaccagca ttatgatgta gcaagcagag tataactctg aagtcagtgg ggtcagtaaa 360

| acaacttn | | | | | | 548 |
|------------|------------|------------|------------|------------|------------|-----|
| tttgacttan | tggaangnaa | aaaaaaaaaa | aaaggggatt | gccnanccta | accctttta | 540 |
| tagaatccaa | acaggtgaaa | aatcgtcact | ccttagaata | caacaatgat | ctgataagga | 480 |
| agccttatca | gaccatccat | agttttacaa | tgtgatctgc | tcttcctcag | accactaata | 420 |

<210> 6023

<211> 543

<212> DNA

<213> Homo sapiens

<400> 6023

| gaaattttt | agttgaccat | aatcatcatt | tatgccagac | ggatttctgg | aagtagagtt | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tttaatcacc | agtgatctaa | attcagtcaa | taacagcttt | tttggaagca | tctcactatc | 120 |
| atcctgaagt | ttgccattgt | tagatatttc | tttagctgac | catagtgagt | cttccttgag | 180 |
| ttcacgtttc | ttcccaattt | cattttcttg | agatattttg | ctactttctg | gtactgcttc | 240 |
| atcactgaaa | gtgtcatttg | tttctatatc | catccttggc | ctttttctaa | cattgacatc | 300 |
| ttcctcctgt | ttttgaactt | tcacatcaat | ttctaactct | ggttttgtgt | ccttgaataa | 360 |
| ctgttccaat | acttcatctt | ctatggccac | atcatccatt | tccctttttt | natttgatct | 420 |
| tagcttttct | gcagcatgag | atttactggc | agaattttc | acaatagatt | ttaaatctgg | 480 |
| atctggaaat | aagttattgg | ctgagtttgg | gtcccaggct | cattctcaga | tagaagctgc | 540 |
| tnc | | | | | | 543 |

<210> 6024

<211> 599

<212> DNA

<213> Homo sapiens

<400> 6024

acatttccaa aatgtttttc ttgtttgttt tgttgttttc atcttgacta gcaccatctg 60

tacacaagaa agtatgaaca taaatgtttg gataataata aagattcgca aggcacttaa 120 tcagtcattc tgggttgttt tgtgttcgct ttccacagca atcctacatc cacgccctc 180 ctttctcacg aaagcaagag aagagtgagg tctcttttgc tagcagttct tatgtacaaa 240 caaggtcttt aaggttcctc aaagtgcttt ttcagtctca cagggcttgg acacccctcg 300 ggcttcccat ccttttctcc ttccacggtg tttgacgttt gcacctttcc tacagaaaac 360 aaaagaaaac tegeetteeg etcaaegeee geteeagaet tgeeaecaae etteateete 420 atteattgte tttgatgeec cageacagag ggeetagggg cgtgeaacat etetgaagte 480 ctggggagcg ggggaccac taggacaaag ggtctggctc atctaccggc gcctggaggt 540 gaaggtcgaa gcaggtgatc atcatgaaaa tgggccttgc anaagttgac cccgnttnt 599

<210> 6025

<211> 585

<212> DNA

<213> Homo sapiens

<400> 6025

ctctcttgga tgtatcaaaa tctcattgag gcattctaaa ccaaagaaac ctctgaattt 60 gaaacagggt tagtagggac ttttataccc agctgggcat cccanaagcc tggactctca 120 ggactgtggc tagattttgc ccatgatctg tanattatgc tcttgcaccg ganacttgaa 180 agttatgagt ttgcattcaa acaaagaacc accagataaa acagatgttc tctaaaactg 240 aggaagaaaa gtttagagat atgcactgta tagagaaaga aagctttttg ctggattgtt 300 ctccttgtta aggaaatgtt taaaactagt actcccgggc acctgtgatt gcattttata 360 ggattctatt tagtaatatg atgtctattt tacattcagc cccaacctac gtcactgaaa 420 tagaatagga aatagcagcc actatctgag agtncccagt tctaaggaaa gtttgggcct 480 cctcaagaag tccctatttc catagcctca atcatgaata nggcttggtt ttggganatg 540 585 gaactattaa engeaggaat geetataett eanageettn tantt

<210> 6026

<211> 534

<212> DNA

<213> Homo sapiens

<400> 6026

| gagacgaagt | tttgcccttg | ttgcccaggc | tggagtgcaa | tggcacaatc | tcggctctcc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gcaaccttcg | cctcctaggt | tcaagcgatt | ctcctgcctc | agcctcctga | gtagctgggg | 120 |
| ttacaggcat | gcgccaccac | acctggctaa | ttttgtattt | ttagtagaga | cggggtttct | 180 |
| ccatgttggt | caggctggtc | tggaactccc | gacctcaggt | gatccgcctg | cctcagcctc | 240 |
| ccaaagtgct | gggattatag | gtgtgagcca | ccatgccctg | cctaatcttg | gattttttt | 300 |
| ttttttttt | ttgagacaga | gtcttgctct | gtcacccagg | ctggagtgct | gtggctggat | 360 |
| ctcagctcac | tgcaagctcc | gcctcccagg | ttcacaccat | tctcctgcct | cagcctcccg | 420 |
| agtagctggg | actacaggca | cccgncacca | cgcccggnta | antttttgga | tttttaagtg | 480 |
| gaaacanggt | tttaccgggt | taaccnngaa | gggcntgaac | tcctggacta | tgaa | 534 |

<210> 6027

<211> 555

<212> DNA

<213≻ Homo sapiens

<400> 6027

| 60 | gtacacatgc | ctcagtgcca | gtctcaccaa | ctccacaact | gaatgggata | gtactcatca |
|--------------------|------------|------------|------------|------------|------------|------------|
| 120 | gaatctaccc | gcacacaagt | ctgtacaagt | gcagctacaa | ttctggactc | tctagaggac |
| a 180 | catgacagga | ttctcttaac | aattgcacat | ttgaggatcg | cacccactga | tgttatcctc |
| t 240 | ttgttttcat | actttccctc | gatctttctc | aatcatgggt | agtgaaacag | gaaagcaaac |
| 300 | agattgtctc | gcatatagag | aaagggctct | aattaacatg | ataccattct | tggtttgtcc |
| a 360 | tctttcctga | ttcatttgag | gggttgaaat | aaaaccatca | tggatcaccg | actgacttcc |
| t 420 | ggncttcagt | agggcatttt | ttacaccttg | tcggattatt | atattcccc | cgcccagcaa |
| t 480 _. | agagaaagct | gggaatttaa | cgctatttaa | ccaaatgggg | tgctctggtc | tcaacactct |
| t 540 | ncccnggatt | ctcttgaaaa | ggcatttaan | gagntctctt | acntttancc | gagaagaata |

| aaactattca | tgcng | | | | | 555 |
|------------|------------|------------|------------|------------|------------|-----|
| <210> 6028 | | | | | | |
| <211> 584 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6028 | | | | | | |
| gttagaggaa | gggtctcgcc | cagctgattt | caaactcctg | ggttcaagca | atcctcccac | 60 |
| ctcagcctcc | ctaagagctg | gcattacagg | cgtgagccac | tgctcccggc | cttgttttat | 120 |
| gcatttttcc | atatgtaggt | aatagctcat | aataaaaggt | ttttttgaaa | atacacaaaa | 180 |
| aaactaccat | tacactccca | ccagactgga | aacaatttaa | aagtccaacc | aagtttaatc | 240 |
| aagtgttgtg | caaaaagtag | aacaaatgga | agtctcacac | atccctgatg | ggagggcaat | 300 |
| gcattacgcc | actttgaaaa | ccagacaata | tatgataaaa | ttgaagggga | gcacacccta | 360 |
| ctcagcaatt | cctttcctaa | ctatatgctg | tcaagaactc | ttgcacacgc | acacatgtat | 420 |
| attcccaggc | atcttctaaa | gaaaatggtg | ggtatttgtg | aaggttangg | ttactangaa | 480 |
| aagtcgggcc | ccgtggctta | cgcctgnaat | ccagcttttt | tggaagcaaa | gccggaagat | 540 |
| ggtttgancc | cagaattnaa | aactggctga | accatttang | ggga | | 584 |
| | | | | | | |
| <210> 6029 | | | | • | | • |
| <211> 536 | | • | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | • | | • |
| <400> 6029 | | | • | | | |
| _ | | tctatttcca | | | | 60 |
| | | ttttttttt | | • | | 120 |
| , | | atcttagctc | | | | 180 |
| attctcctgc | ctcatcccca | acacagaaca | tattgtcaga | aaacacctcg | ggtctctgtc | 240 |

tcttttggag ccaggcgttg caggcctcc tgggagctac aggcagcctc gagtacttca 300 gctcagtagt tagccagccc atctccatgc caaacccact gacgtagccc aacaagccgc 360 tgcggtanag ggtctcatta tcgggcagac agaccgggag gacgttgggg cccagggga 420 tgctgngctg cagctccagg agggcgatgt ccccgctaaa gttatgggac tcattctgac 480 ggtanncggg gtgcacaacg acccggngga caggggggt ccccagttnc nnatnt 536

<210> 6030

<211> 562

<212> DNA

<213> Homo sapiens

<400> 6030

ccgggttatt atttttatt aagatcaaaa tacaagtccc actatgaact ggctgttctc 60 acaataaata acaataactt acgtttgttt gttcggcaaa ggctcacata ctctgtcctc 120 180 cgtcgaataa cttaaacact ttcaaggcaa gtctggtttc tactgtttcc cagcaatcat gcgctttggg agtttgagtg tctgttcctc tgagttatcc ccttcctttt ccccgctagg 240 agcccgggcg aagccgccag ggagcgctga gctggggcag ggcgggggtc cgcgtgggcg 300 360 agctccggc cgccgagat ggggacacag gtggggcgtg gagagacaga gcggcggcca cgtagagagg agaggagagg gcagagctaa ccctggtaag tcccagaatt ctggttttga 420 aaaactaaga gtcctcggaa gcangggtct ggcagtctgg tgaaagcagg ttgcatcctg 480 gcgccttggg cttgtccaaa accgngnctt ttngnacttt ttcataaata ccattgaata 540 attncnaagg caaaaaacnt tt 562

<210> 6031

<211> 563

<212> DNA

<213> Homo sapiens

<400> 6031

gtctctgtag gatactaagg tacaggatgt ggtaatatgt tcaggcagtc agatacagga 60 aatatttatg gtacataata taatatcttc tcatgtccag gtgttgaact ctgaagtcta 120 gtgacttgaa tttgatctag ngaaatatat actcacaaag ngaggaatta tatctagaaa 180 tctgtaattt ttaattgtnc cgctaaagcg ctttaccttc ttttgtactt cttgaaaata 240 ctggctgcat tgcaacagaa gacaaatatg attaatgtca tgcaattcat aatatcttaa 300 attgcattgc tggattcttt ctcaattaaa agaaaaaatg aaagaaaaag gcttttaaaa 360 tgtttttcat gcatctgata acagtgacat agaaaggaaa aaatgaaaca tagttcagaa 420 tcttaaaagt aagaataaat ttcagccagc cngacatgac tctattcaac aaacntgatt 480 gancggattt aaggtatagc taaaagggct taaatttcac ttggtatccc aatccttttt 540 563 tttttaatta anggtanatt tta

<210> 6032

<211> 503

<212> DNA

<213> Homo sapiens

<400> 6032

| 60 | gttacaagac | cgcctntaca | taatggcagg | cggacacgtt | gccacagcag | canatctgtc |
|-----|------------|------------|------------|------------|------------|------------|
| 120 | agatgacagc | agctaaacac | gcactccccg | cccttagggg | tcagttcgcc | atgcctgagg |
| 180 | cgctccgnta | anaagtcctg | tgaggactgc | cggggtcacc | gctggaggcc | gacccagggt |
| 240 | aagagagccc | catggatggg | aggtaggcaa | ccaggggcac | cacgcggntg | actgtgtgga |
| 300 | gccaaccagg | ggcactgcag | cgcagaccac | ctgcagagca | cgtntnacag | aggccgcccc |
| 360 | tctcccgctg | ggggagaagc | tgggctggtc | atcctggggc | ggtgcgacac | canagctgct |
| 420 | tgtttctctg | cccaggcctc | gggaaccgag | tgcagggccc | ggcctgcccc | acgctgcctg |
| 480 | gccttaatca | tgcaangggg | ggaaagcggn | tggtggccct | gcanaaccct | anaggctgga |
| 503 | | | · Yo | ngt | ccnggcgttg | ngggaggcac |

<210> 6033

<211> 569

<212> DNA

<213> Homo sapiens

<400> 6033

| gagacgggag | tctcactctt | gttgcccagg | ctggagtgca | atggagcgac | ctcggctcac | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tgcaacctct | gcctctcagg | ttcaagagat | tctcctgcct | cagcctccct | agtagctggg | 120 |
| attacaggta | cccaccacca | tgtccagcta | atttttgta | tttttagtag | agatggggtt | 180 |
| tcaccatatt | ggccaggccg | gtctcgaatt | cctgacgtca | ggtaatccac | ccacatcagc | 240 |
| ctcccaaatg | ctgggattac | aggcgtgagc | cactacaccc | ggctaccttt | tggccttttt | 300 |
| gtttcatctc | atttgactgt | cttcttttt | aattcctatg | tttcttcaaa | tgaattaacc | 360 |
| gtttcttttt | tgatcatttt | tatttttgct | tccttgctgt | acacacctct | ctttgaaatc | 420 |
| attccttatg | gctcctctta | ccatattcct | tcatcaagtg | taatattatg | agatttctcc | 480 |
| atgattcaca | catgactttc | agctgatcnt | tacttcttag | ccttaattcc | cttnactaan | 540 |
| ccctctggca | ttnttagaat | aatgggtta | | | | 569 |

<210> 6034

<211> 582

<212> DNA

<213> Homo sapiens

<400> 6034

| catgcttttt | ttaaaaaaaa | aaacaggaga | aagcgaatac | agaggaaaga | gagaa taaaa. | 60 |
|-------------|------------|------------|------------|-------------|--------------|-----|
| ttaattggga | gatggagatg | atatttgggg | atttgaaagc | aaacaagatg | taagagaggc | 120 |
| cctctttgac. | tgaaaatgac | acagaaaaag | gtgatcaagt | cttccagggc | ctgctgttac | 180 |
| tgatggagac | tacagctaca | atgaaaaatt | actctcacta | ccatatcttg | gggaaggagc | 240 |
| gctctagttg | caaggaattt | gtaaataaag | gccgagagac | tctaacaaac | aagatggaga | 300 |
| acaaaaacaa | agattccatț | aaaaaatttg | ttaagtgaaa | aaccaagacc. | atctcagtgg | 360 |
| acaaaagagc | cagaactctt | cctcgtagag | ccggcccgtg | gggaccgcac | ctgccgccca | 420 |
| aagagtggcg | atttgaggnc | cttctcctgg | aaagtgaata | gctggagttc | tgaaaaatgg | 480 |

| tcccttctct | ggactgnggg | tttatttctt | gggatcttgg | accaaaggan | ggncntgggt | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| ttcttgttaa | gagccccaaa | aaggtcttta | atctaaaagg | gc | | 582 |
| | | | | | | |
| <210> 6035 | • | | | | | |
| <211> 588 | • | | | | ; | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | • | | | | |
| | | • | • | | | • |
| <400> 6035 | | | • | | | |
| gagaaaaaaa | ttgggctttt | attggcaatt | acaaaagtaa | tagattttct | tacataatac | 60 |
| gttccttcag | taatatattt | ttcaagtatc | ttaccataga | atttctaaag | tactttgtca | 120 |
| ttgaccccat | aatttattat | aaagtaggtc | ccataatcac | atttttgga | agttgctgaa | 180 |
| attgagataa | aaaatattgt | ttttttatga | gaaaaaccgg | acaaaataca | gaatggccaa | 240 |
| aactagatta | actggctcag | ttatgtctac | taggtgaaag | aaaatacaga | atctgttact | 300 |
| gtagaaattt | taagaggttt | tgagtcagtt | ccagtataaa | aataaggcca | aagttctcct | 360 |
| gtaaaatcat | cattaaaagt | cagagaagag | atctatcatt | caaattataa | aaggaaacct | 420 |
| cattcatttc | acagtctaaa | aaaaatgcca | atcttactag | gnggtacttt | tggcagcaga | 480 |
| ataatttccn | tatgggccaa | taccatataa | ttanttccga | ctggataccc | aaatcttcct | 540 |
| tatccatcct | ggacttaaaa | tgggtggctc | ttcctcctgg | gggaaggn | | 588 |
| | | | | - | | • |
| <210> 6036 | | · | | | | |
| <211> 542 | | | | • | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6036 | | | | | | |
| gtacacaaga | acttatgttt | attgcaaaca | aacaaacaaa | aaaaaaagga | aagagaggaa | 60 |
| aagagaaaat | ggtcagaagc | acaacatata | aggttaagaa | tttaaaagca | tcttacattc | 120 |
| tgccctaatg | gcagcataat | taatagcaac | aaacggccgt | cttgctgcct | gccgcagccg | 180 |

gagggtattt ttgcagacct gacgagcaaa ttttgtgaaa tatgtagtat gaaggaagaa 240 agcttggcgg gtcttcactg cagactttgg actcccagtg tttcggactg gcattccctg 300 catggcctgg cgggacacgt gacttctaac acgagggtcc tctgtagttg ggctaggaga 360 taacttctct tcttctgact gggtgggcat tttcaagcct ccatatttt tccaataaag 420 ccaacaaata gcacataatc tacactgcat attaggnggg ccccaagaat ccctggtgag 480 actgngtanc ataacaactt ttacangntt ttccttaaaa angattttan gcttgaacgt 540 gg

<210> 6037

⟨211⟩ 586

<212> DNA

<213> Homo sapiens

<400> 6037

gagatggagt cttgctctgt cgcccaggcc agagtgcagt ggcgcagtct cagctcactg 60 caagetetge etcetgggtt caeaceatte teetgeetea geeteecaag tagetgggae 120 tacaggtgcc caccaccacg cccggctaat tttttgtatt tttagtagag ttgggtttca 180 ccatgttagc caggatggtc tctatttcct gacctcgtga tccacccacc ttggtctccc 240 aaagtgttgg gattacaggc gtgagccact gcgcctggcc acctcaatta tcttttttaa 300 aaggcattat gaaacactga aaatctatat tgaaatcagc aaacttcaat atagcaaggg 360 aagatttagc accaacattt taattgactc attacaaaaa ccccttcccc ccaaaagaag 420 atatttcttg attttttata tttaagatat cctaaacatt tttattcatg ttacaacttg 480 taacacaagc accatgcatg nattattgaa atgtctgggt ttttggttgg ccttggtttt 540 aatggaggca aggctnactc tggtggccca gctgggagtg canngg 586

<210> 6038

⟨211⟩ 575

<212> DNA

<213> Homo sapiens

<400> 6038

gctggcaata aataagatat ctttattatg attatgttaa tagttaaaat ttgcatgttt 60 tctagatagt ctgttaacag gataaaaaaa tacaaaaagg cgagcttctt aatgattcag 120 ctgaattaac tataaaatta aaatacctgc taattattat cttctaaaat aacacaaaat 180 atattcaata cgcaatacaa acctcagtaa tccaattctc ctaatatgca attatttata 240 acctctgaac taagaggaag tggtttgact aaacagagaa ataacaatgt ttttatccta 300 agtaatctat actttggagt agaaatactt atttaataca atatgttaat tattaatatt 360 tcacaaggag taatctttat tttgaaaaac aatgttaatt ataccaattt ttagttataa 420 tttggtagtg ngaattcgcc caacctaaat tcctgngngc ctggaaaata ccacttttta 480 aaagctagna ttaatcattt ggacacaggt tactaattca aatggcatct caatctactt 540 atcnttaang gaccgaaatt aacatctttt tggtg 575

<210> 6039

<211> 577

<212> DNA

<213> Homo sapiens

<400> 6039

60 gacaagaaag ggctctgtca cccaggctgg agtgcagagg caagatctcg gctcattgca acctccgcct cccaggttca agcaatctga gtgcccattt ctaaaggact ggcttgtgga 120 180 gagggcaaga ggcgataagg agaaggctag ggcaggcagt gctcaccttc ttcaggatga 240 tatcgatgta gccggcaatg agctgtgcaa tctgctcccc ttcagttgtc tgtactgagt aatagccatc ttggtaatct ccaaaatcct agggtgacaa gtggggggact cagagggaaa 300 gctcaaatct atccaggatg gaaatggcta ggatgggagg cccaaggttg agctgatgag 360 atgeetteeg tggeaacgge cetettggaa gatgeecace tttettgaac etectettta 420 ttttctcctt ggagggaaat ttttacttct gaggagtggc ctctacacta caccagttcn 480 aatccatatc atttaaggaa gtctcttaat tttactctga tgataaaatg agaggattta 540 tattggcata aaaggccccc tttaaggtng cttgtan 577

<210> 6040 <211> 607 <212> DNA <213> Homo sapiens

<400> 6040

agagttgcta aaatgatgta ctactgcatg tattgcaata ctcaggcctc ggaaagcttc 60 ctttctcccc acattggaag gtttttatgg ttttgtcatt tagtatggag caaaacggtt 120 gtatececet eggtatatae tageetgeaa tgaagaaaga aegagaeeea eateateage 180 240 atggctccta gtcttggcat cagtcaaagg tgcaaaagca ttcatggcac caacgccgta 300 ggtgggggct ggagcaagtg cgtggtggta ggggtcggca gcataaactc gtccgtaact gtcactgtag gcagcggcag tggcaggggt aggctgggcg tagcggtatg cagcataacc 360 accataaatg tetgeaceat aaaateeate etggtaaaca acaceegeeg taggeeeggg 420 atcgggggcg ggggccgccg cggccctgaa ggtgttgtac acggtgcgac ccgcggnctc 480 gcaagtgcgc ccctcggtaa gcggcccggc ggtggcttct tggataccgg naagcctggc 540 anttgcanaa atntttccaa gtgaactggg gggcnctgtc catggaaaaa anccctcctg 600 607 ggtgggc

<210> 6041

<211> 592

<212> DNA

<213> Homo sapiens

<400> 6041

aactaaatct taattttgga tggcttaccc aactattaac tggcagagct ggggtttgag 60 cccaagcaat tcagtaaaaa agttatactc ttaaccacta tagtatgctg cttcttcagt 120 atttacatat gtttgtcagg aagaaataac tttttttt tttgagacgg agtctcgctc 180 tgtcgccagg ctaaagtgca gtggtgtgat ctcggctcat tgaaacctcc acctcccggg 240

ttcaagcgat tctcctgcct cagcctccct agtagctggg actacaggtg tgcaccacca 300 cgcccagcta atttttgtat ttttagtaga gatggggttt caccatgttg gccagtatgg 360 tctcaatatc ttgacctcgt gatccgcctg cctcagcctc ccaaaagttc tgggattaca 420 ggcgtgagcc accaagccca gcctgaaata atttcttaac aatgcctaac acagngcttn 480 catacatttt aagaactaat aaatacttgg ttcttccaaa attggcaggc accaaangta 540 attgggactt agttcngggg caggaaaagg gaatgaaaac tnttttaaaa ga 592

<210> 6042

<211> 591

<212> DNA

<213> Homo sapiens

<400> 6042

gagatggact cttgctttgt tgtctgttgt ccaggctgga gtgcagtggc acaatctcgg 60 ctcactgcaa cctccgcctc ccaggttccc aggttcaagc gattctcctg cctcagcctc 120 cctagtggct aggattacag gcatgcacca ccaagcccag ctaattttcg tacttttagt 180 agaaagaagg tttcaccatg ttggccgggc tggtcttgag ctgctgacct caggtgatct 240 acceaectna geeteecagg gtgetgggaa tacaggeagg agceaectea eccageette 300 teteteatet ttattaatet aattettatt tgttetteag gagteagtte aageataage 360 atctcacaag tgcctccttc cctcccagtc tgggtcaggt gcccctctta tgtactcact 420 caagccataa gcatgtctct attttaaaag taactggttg cttggggtgn ctncctacca 480 gaccetaage tettinggga taatgiegga caatettett canagicaet gggeeceaat 540 atntaacang gatcctaana cgggttaagc attttccaaa ngcttnctaa a 591

<210> 6043

<211> 606

<212> DNA

<213> Homo sapiens

<400> 6043

ctttttttt tttttgcctt ttccaaaaca gatgattcat ttgcagatta aaatttcaac 60 catatacaga cagetteaaa agateaeeee tggcegetge eectatetge acagetgeet 120 ctcccatctc ctctccctac taagcaacct ctttcttctc tcctgcagct cacacaatgt 180 teatgageat accateaaat acaaatatte caatttttee tgtteeette acacaaatgt 240 agcettetet etatataetg ntetgtaett tgetttttaa ttgttagtaa ttttteegea 300 acaggacaca aagagcaatc tcattctttc tggaggtcca tgcagaatac tgccctcaat 360 ggatgtcacc tatgtgacca gttcccactg atgaccctta cactgaaaac cggcttacac 420 aggagtggtc tatgatctat gatgtattaa catggacatt tcctctttca ttatgaattt 480 gtaaaggttt ggatttccat aattcttttt taatcagtgn aaacataaaa taaggttttg 540 ganaagagat ncaggaagcc aatttnggaa ctttnggttt gggccccnca tctttaaaat 600 606 gggnct

<210> 6044

<211> 582

<212> DNA

₹213> Homo sapiens

<400> 6044

ggtagttett agttttatta taacettgta ttttetggea aaaatataaa tetaaatgea 60 tgatctctgg gcacacagct caagtatcag ccttgagatg acctaagcag caaaaatttg 120 gcctatttaa ttaaatgcac aggaggttgc agccgcattt attagaaaaa tattatcctt 180 tggaaattcc tttcttgaag attggctcca gggcgttgtt ctttctgttt ttatgcaatt 240 gcacttcctt ggcaggcagc caggcgctcc ggtgctcaca ggccatggga cagtccagtt 300 ccctgcagac ccagcgggc atgggcggac agagccgcac cgtgaagccc gcctgttatt 360 tccatcgggt ggtcctggag acgacacggc tggggaaatg ggtcaccgga actccacggc 420 480 ggccagacgc ccatccaatt tgcctgcggg aactcgctct tacctttctt acaaacttct 540 tttggaagcg tnggatttaa cgttccgcca gttccaaggn gctgtcccgg actganggta 582 ctgaccggtg ganagcattt tgacaaaggg gacacccggg at

<210> 6045
<211> 589
<212> DNA
<213> Homo sapiens

<400> 6045

60 agtcattttt aatgcatttt tctctgtgca caagagaaat aactgatgaa gtcaaaagac 120 acactttcct ttatacatag cagttaaaag taatgcaaac atcacatgac actttcagtg 180 aaagttacat ttccaattac aaatcaaaat gcatattagg gtctctttat gggagaagct gagaaggaag tettaggtaa aaagcaettt eetggeatta etacaetgat eetteagget 240 3.00 gcacaaagat taaggtcata tacagtcaat ctgcaaatgt tgacacaatg ttacactgta aattttctgt acaattaaat gtatacttag agataccagg ataaacattt ctactatatt .360 420 ttaactgaac ttgcctagcc aacattttca ctgagaagtt tatcaaagat gctgtaagat tctacaaaat tgtgagacat aactagcttc agaaacattc ttgnattctt tctcattttg 480 540 ggtaccatat tacactcaga ttctactgna atatttttag aatgtccgng ccaattgngc 589 ttactnggnc ggattccaaa tntngcaaaa agaccaatgg gtttaaatt

<210> 6046

<211> 454

<212> DNA

<213> Homo sapiens

<400> 6046

ctgggtgagt gtcactagcc aatcatagga ttatttcttt ttttgagaca gggtctcaat 60 ctgttgccca ggctggggtg cagtaatgca atcatagctc actgcagcct caaactcctg 120 ggttcaagcc atcctcccgc ctcagcctcc tgagcagcta agactacagt catgagctat 180 tataacatgc ctggctaatt tttttaattt tttatagaga gagggtctac catgttgccc 240 aggctggtct caaactccca gcctcaaatg atcttcccat ctcagccttc cagtgttgga 300

attacaggta ggagccgagt ccatagggtt attgngagga ttcaatgaga taactnatgc 360 aaagtgctca acangatgcc ttgtatatac taangcctta atgttgcctn ccnctcacac 420 acatgcacat tcacncatac acangcagac tggt 454

<210> 6047

<211> 584

<212> DNA

<213> Homo sapiens

<400> 6047

aacatagaat ttattttta gagcagtttt aggtggaatg gaaggtacag agatttccca 60 tatattccgt gctcccacac ttttacagct tcctctatta tcaatatctc acaccagaat 120 ggtacattca ttacaactga tgaacccaca ttgacacatc gtcatcaccc agagtacaaa 180 gtttacattg aggttcattc tcggccttgt ccattctatg catttggaca aatttataat 240 ggcatgtatc caccattata acatacgaag tagtttcagt gctctaagaa tcatctgtgc 300 tecacetatt cateteetge acteececaa caeegggeaa ceaeteatet ttttaetgte 360 tccatagttt ggtcttttcc aggatgtcat acatatttgg aatcacgcat tatgcagcct 420 tttcagattg gcttttttca tttagtaata tgtgnttaag tttactccat gnctcttcat 480 gacttgatag ctcatttctg gantanggct gagtaatact cattttctng gatggggccc 540 584 aaattetttg gecattneee tneneaaage etttttggng ggtt

<210> 6048

₹211> 587

<212> DNA

<213> Homo sapiens

<400> 6048

cattcgatta aaatattttc actttttcct gtgatttctt ctttgatcca caggttattt 60 ataagttagt taatttccaa atatatgggg gctcttctag gtgtcttgta tttatttcta 120

atctattttg tgtgcagata acataatctg taagatgtca ttcttctgaa atctatttaa 180 acttgtttta tgattcaccc tatggtcagt ctgtcttggt gaacattcca tgtgcatttc 240 aaaaactatg tatattctgc agttttgggg gaaagtgttc tataaatatt aagttaaggt 300 ggttggttgt gtcactcaga tcttctctgt actgttgtat agttgttcta tcaatcactg 360 420 agagcagtgt gttaaaatct ccagacgtgg ttgtgaattt gcttatttct ccctttagtt ctgcagcttt tactccatgt attttgaagc tgctattgat gcagatccat ttatatctac 480 caaatggtat ggatctttat aaattatgag tgnccttttt ttggccctaa cataattcct 540 587 ggcttgagcc taatttgggn gnttccctaa cctaccggtn gcagggg

<210> 6049

<211> 590

<212> DNA

<213> Homo sapiens

<400> 6049

gagacggagt ttcactcttg tcacccaggc tggattgcaa tggcgtgatc tcggctcact 60 gcaacctccg cctcccgagt tcaagcaatt ctcctgcctc aggctcccga gtagctggga 120 ttacaggege ctggccacca tgcccggcta atttcactta gcattttctt tcttcagcac 180 ttctaacatc cttctattca tcagatttct gaaaatgatt aggcagtatt attaaaggta 240 300 cttgtagcta tggtctctgg agtatttccc aaatgcatgt aaatatctgg gttgggaaag ggggaacagc agaaataaaa gtcataaaaa ctgaatgaaa cacataatat ttgaaagcaa 360 420 attegaaaaa aggetagtga gteteateat ttteettgea gtgataaete eeataattet ctgtttattg acaaaaaaga gactattgtg aaaacagaat tcctaaggca ttaatctatg 480 540 cctcaactaa ggaagttaga gagaaaccca gggntcagnt cccaacttca cctggctttt 590 tcatgcctta ncttttggct naacctaatt tccttgaagc atggaagggg

<210> 6050.

<211> 551

<212> DNA

<213> Homo sapiens

<400> 6050

gagacagtet caetetntea eccaggetgg getgeaatgg ngeaacettg geteaetgea 60 acctccacct cctgggttca agngattctc ctgcctcagc ctcccgagta gctgggatta 120 caggegegtg aagecaegee cagetaattt ttgtattttt ageagagaeg aggttetgee 180 atgttggcca ggctggtctc aaactcctga cctcaggnga tccacctgcc tcagcttccc 240 aaagtgctgg gattacaggc gtgagccacc gcaccaggcc tcccaaaaca ctattaatgg 300 aaatattttg ngaagttaag agcttttaaa atcacacttc tgagtatttc caattaacaa 360 actgttataa cccagggctg ctgcatgtta ccagtggggg ataagtgagg aggtgtgtca 420 480 aactgtcaat catgatgcac accgatttaa tacagtgttt tggtngcaag acttttctca 540 aattcangga acagtgcagt ggatttacna tcatggcata aaaatncttt aactcacntg nggatggttt n 551

<210> 6051

<211> 587

<212> DNA

<213> Homo sapiens

<400> 6051

60 ggagatagag tettgetetg teceecagge tggagtgeaa tggegtgate ttggeteaet gcaacctctg cctcctgggt caagcaattc tcctgcctca gtagatggga ttacaggtgc 120 180 ctgccatgag acccggctga tttttgtatt tttagtagag atggggtttc accatgttgg tcaggctggt gttgttgaac tcctgacctt aggtgatcca cctgcctcag cctcccaagg 240 300 tgctaggatt acaggcatga ggcaccgtgc ccagtcagct gcttgtcttt taaataaagt gaatttcaaa aacagatact tcatattctg ggcatagcat cacacataca accacattac 360 420 caatataata atattaaatg attacttaac agacatccta ataacgcaaa caccttttat tcacatttgc tgagtagcaa ttacagngtt tcttcattag ttttccacct ggtaatggaa 480 540 ttatgagcaa ttctaacaat ttaagtccca aactttgacc aacaataatc ncaagggtta

| taacaactgg | acttnaaggc | cnccttgatt | tttcccccc | anttggn | | 587 |
|------------|------------|------------|-------------|------------|-------------|-----|
| | | | | • | | |
| <210> 6052 | | • | | | | |
| <211> 591 | | ** | | | | |
| <212> DNA | | • | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6052 | | | | | | |
| cagtagcaca | ccttttgttt | attgacctat | gtaaaaaaat | aataggtctt | gaaaagtcag | 60 |
| aacaataaaa | gaatatgcaa | aaaggttatt | tctgattcta | gaaggctata | caaatatgca | 120 |
| aaaaaggaat | aagttatttt | tttttgcttg | tcttttttcc | aaaattttt | cccaaacttc | 180 |
| atttctaatt | atacaaatga | ctaaggacca | gtttaacaaa | tcgtttttat | gtatatatta | 240 |
| catgctttgg | aatatagata | gaaaatgttc | caaaaaagtt | gttcagaaac | ttttctattc | 300 |
| acaatatgaa | caagaaactt | gtataaaaga | agggggaaag | gagcaccttt | tatgtaattt | 360 |
| tgaagcaaag | atgacaaaaa | agatcaatct | ggaatatgga | aatcatttgc | tttaaaaaaac | 420 |
| aaacaaacaa | aaccctacaa | taaaccatag | ctaattagtt | cttccangga | aagtttgagg | 480 |
| nagtttagcc | tcataattaa | atccccgnag | cttgggactt. | tttggcctng | tgggggtttc | 540 |
| ctttttaagg | taacctggnt | ttggacttgg | ggacttggaa | cacttgggga | a | 591 |
| | | | | | | |
| <210> 6053 | | | | | | |
| <211> 573 | | | • | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| • | | | | , | | |
| <400> 6053 | | , | | | | |
| gagacagggt | ctctcctgt | cacccaggct | ggagtacaac | ggcataatca | aagctcactg | 60 |
| taactctgaa | ctcctggact | caagcaatcc | tcctgcctca | gtctcccgag | tagctgggac | 120 |
| taaaggcatg | caccaccatg | cccagctaac | ttttgaattt | ttctgtanag | atggggtctc | 180 |
| cctatgttgc | ccaggctggt | cttgaactcc | tggcctcagc | aatcctccca | cctcagctct | 240 |

acttettet ttetteett ettteetee tteetteeat eetageaate eteeaceta 300
aactgeeett eetteettee eacetaaact geeetgeeet eeeeteete eeacteeeet 360
eeeeteeett eetteette tteetteett eetteetgta geettggtet eeeaggetea 420
agtgateett eeaceteage etteagagta getgggatta eaggeataca eeaceatgte 480
ggaetaaten ttaattett gnggggatgg gaeetaetat ggtggeeaag etgggettaa 540
acttetgaae teaageagne etetggetta ane 573

<210> 6054

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6054

cccctgggga ctcaaggcag aagtgccact ccctccgttg accacggctg ggaggggtgc 60 ctgtctcttc agggaagagg tggggagact aacaggttcc ctcccagctc aggtctacac 120 tgacttcagt cgtaactggt tccagcatcc ctcaacccag ttttatcacg cggtctaggc 180 ccaaggtcca gggctctggg actccctccg atgctcccac ccctggcccc tgcaccttct 240 ggcttctgca gggaccgctg ggccctggat gaggcctctc ccacctcgct ggaagaccag 300 agacacette ggatgeeace ttgacgetgg ageggatetg gacetageee ageageteee 360 aagtgactgt gtttccagca gcctgatcct tgttgaggcc cagggaagtg tcccaggccc 420 cgacttgcca gacgaggctc tattccggct gctgaaccca cttttctcct ttatttaaat 480 aaatactcat totgggotgn acacgttoca agcancangg goangcaanc coggtgcoot 540 tgcgtggcaa gggaacaact tggcaagccc ttacttgggc gaattccg 588

<210> 6055

<211> 595

<212> DNA

<213> Homo sapiens

<400> 6055

aaaaaaaaga agagttatct acccagcaat ctgtttccct gtctggggga gggggttgca 60 tgcaggctgg gggacaagac gggcagctgg aggtgccagg atcaatggcc tcaaggggtg 120 ctcccaactg ggtgcttttt cccatacaac ctagcgctat gcaggtgctg aaggtgacac 180 ctctgctctt gagatctggc tctgagtagg cctgaggtgc acgcccctct_gctctcct 240 cccctctccc ctccctcccc agagagaaaa cactcacttg ccaggtttat ccagaagccc 300 ccccgcaggg cactggcagc acatcaggat gtactcctgc agggcctgct gatggaacat 360 ccagtggctc atgctaaggg cagggtcacc tgttgaaggg caaagggtca gtaagggccc 420 ggcagatcca gccaagtatc aatgacctaa ttccactttc tcacctgggg gaaatagtca 480 aggnttcctg ntcccctttc ttctttcatt cattcttggg acaactgnta tctttcccca 540 tgtcctacgc acaagcatgt cctttttcct gaacntttga catggggtna aaaaa 595

<210> 6056

⟨211⟩ 581

<212> DNA

<213> Homo sapiens

<400> 6056

ccgtctggtc tcataaccac tattgatatt ttccatggat tcagaactac gttttagaac 60 agggcactct gggttttctt tgaggcatgc acagtccacc ttgtacttac aatttccata 120 gtcaaaatca aaggcaatag taatttcagt tccctttgga atactgtgta tagaataaat 180 ataaagatgt atggttccat cttgaatttc atgcctcacc tctgcattgg gtgtacaaga 240 300 ccgcctgatg aatcgagcct cattcccaaa agtccttgca tcaacacaca tttctagccc atgaaattta gagtagaata acacaaaagg gtatggtctt ttaaagaaat acccatttgc 360 ttcaaactgt tctctcagca taaacttccc tctgtattca atgataagtg catcaggagg 420 caaatctttt gcagatttaa gaattttctt atcttttgga tatggctctc tacaggaggt 480 ttgaagagcc aaatggtggg attcaaatcg gattaatcat cnctttttg gcanttccat 540 581 ggccaaactc aaactatctt tggcctcctt tgaacaccct n

<210> 6057
<211> 429
<212> DNA
<213> Homo sapiens

<400> 6057

60 gaagggcaat ctttcaattg cttaaaatta atcagtgcaa agtgaggtaa aagatccccg 120 tttgtcaggg ccgaggcagg aggctcacac aagcctgcgt ctcttggagt ccctccccag gtcccctcc tngacatcca ccttacagcc cagtggggac accaggttca gcagagggtc 180 240 ctcagaggca cggccgaaga gcgccagcag gagggccaca ccgaancctg tggctcgctc 300 accagcatge accggtgeag caatgteeag gtggacceag acteegggee agtegaagee gatgtgtgag gcgatgaaga ggccagcaca ggagctgggg ctgttgtctc ggtccgccac 360 tgagttcttc atgtccgcca cagctgaggt gaactcgctg aagtgcannt nggggcanta 420 429 naccanngg

<210> 6058

<211> 533

<212> DNA

<213> Homo sapiens

<400> 6058

60 gtgacgcagc atcaggtgct tttacttcag tgaatgaaaa ataatggtca caactcaaat 120 gaatgggaat ttaatatgaa tatatgcacc ttaccagaga tgtttgctac caatgatatc 180 ttagcaattc catattcctt acaaagtcag tataattgtt gtaaaaaaat caactgtggt 240 tctgaatacc cattcacagt tgacctcaac aatgtatctg atgtaggaga ctgagtatcc 300 gtgacaggca gaagcatgtg atggtcctca gtcccaagtg gaagagctaa tggtaaagtc atatcagaag gcttcacatc catagtttct gataaaggac ttttttgtat ggaatcctgt 360 420 tcactcaaag tatgatcctc tgcactggag tctagagttt tatctgcacc agaatggact 480 tttgttttgt gcttctttaa atttttaata tctgngtaag aatttncaca taattcgcag

| | | | • | | | |
|------------|------------|------------|------------|------------|------------|-----|
| ataaatggnc | tttctnctgn | atgggacccn | aagtgtttgn | tgagctcttc | Cgg | 533 |
| | | | | | | |
| <210> 6059 | | | | | | |
| <211> 523 | | | | | | |
| <212> DNA | | | 1 | | | |
| <213> Homo | sapiens | | | | | |
| | | • | | | | |
| <400> 6059 | | | | | · · | |
| aaagcaaata | aaacatttat | tgttcagatt | tttttccatt | ttcttccttt | ttacaaaaac | 60 |
| atgcatacat | acacagggta | tggtgggtcc | taggaaagac | acacacacac | gcctcactca | 120 |
| cacacacgct | cacacacacg | cctcactcac | acacatgete | acacacattt | tccttcttga | 180 |
| ccccaggcct | ggacccccaa | aagccttgaa | gactttgcca | gagcagcctc | ccctcctcca | 240 |
| tgtctgtatc | ttctctccca | cccttcccc | ctcagtcagg | ctattcctat | gtggggtggg | 300 |
| aatcagagct | atggtggggg | aggccccaga | aacagagaag | gctccccgag | tggggcagtg | 360 |
| gccgaggggt | cccaggggta | tgctgcgctt | ctgggggaga | tgaagggttt | ggcaccattg | 420 |
| gatcaggaag | cacaggactn | ccagagcacc | catctgntnc | accangggca | tcgncaggaa | 480 |
| ggttgatgta | agggggcctn | tggcnagggt | ccgaccaaat | gga | | 523 |
| | | | | | | |
| <210> 6060 | | | | | | |
| <211> 585 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | · | | | |
| | | | • | • | | |
| <400> 6060 | | | | | | |
| | tttgagacgg | agtctcactc | tgttgcccag | gctagagtgc | agtggcatga | 60 |
| | | | | ttctcctgcc | | 120 |
| | | | | tgtatttcta | • | 180 |
| • | | | | | | 240 |
| • | | | | ctcaagtgat | | |
| cagcctccca | aagtgctggg | attacaggtg | igagccactg | tgcccggcca | catetgtact | 300 |

tttaagggta cagctttaca gtacatagga atttgagaac cacttcacag gaagagggaa 360 acagcccaat atttatttat gtatacacat aatcccaagt gtgtgctggg gccaccaggc 420 ccttctgggg gaacaaggac tgtcgtgcat gtgagtgacg acattaataa gcatttacat 480 actgtacaga tgcaaccttt tgatgatnca tatantttga taaaaattga gaaaacngnt 540 ttgttgtana ataccttngc cactttttta gcatgagaac agtnc 585

<210> 6061

<211> 580

<212> DNA

<213> Homo sapiens

<400> 6061

agacatcaga aatgtattat ttcatagttc tggaggctag tagtccagta gtagtccaag 60 atcaatttgt tggcatggtt gattccctcc ctcccttcct tcctttttt tacagggtat 120 tactctatgc ccaggctgga gtgcagtagc tcaatctcag ctcactgcag cctcaacctg 180 ctggactcaa gcagtcctcc caccccagcc tcccaagtag ctgggactac agatactcaa 240 caccacacce ggctaatttt tttgtagaga tggaatttca ccatgttgcc caggctggcc 300 tegaacteet aggeteagge gatetgeeca ceteaacete ceacagtget ggtattacag 360 420 gcgtgaagcc accacgcccc accaagattg atttcttctg aggggtctct tcttggccat cttctgtgtc ttcccatggt cttccctctg gtatgcgtct ttgtcctgat ttcttctcc 480 ttggctggtg aagaagccgc cggctccggg tcanaaactt tgggccggct ggtggttctg 540 agccatntgg ccgtctgntn ggttcactgg ttggaatctg 580

<210> 6062

<211> 586

<212> DNA

<213> Homo sapiens

<400> 6062

aacattaagt gtcattttaa aaaatgggtt aaataagcag cattgctgag gatggccgtg 60 cagggctgat tatcccctat ttgcacgttc tggcggtggg aaggctagaa gtctaatgac 120 tgaattatcg ccctaatgcc tctcgctggc tgggaataat cccggggcaa cagctgccgc 180 ggggtttttg gctggtttcc tctaattgca tccagattaa gggagttgtg gaggggcggg 240 300 gcttctccat cccccgcgga gcagcgtctc ctccgccaag ccctgaacac ccaggtcatg 360 gcttccgagg tcctggctgg tccgagaggt gcagacctca ctggggtccg ggccagccca tggggagcgt gaggtgcgag cagtgcacgg tggggtggc acttggtgca nagatgcanc 420 tgattggtcc gggtcatgtc ttggggagca ncangggtga aaactgtagg gccaggagac 480 tcagaaggaa atgccttcta ctaggacctt nccaatgaag gggagccctt ggacctgcta 540 586 tcctcttcct ccttccaaaa acaangggtt caaagcacna aggtnt

<210> 6063

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6063

60 gaggeagagt ctegetetge tggteagget agagtaeagt ggtgegatet eggeteaetg caacetetge etcecaggtt catgegagte teetgeetea geeteetgag tagetgggat 120 tacaggcacc tgccaccacg cttggctatg atttttgtat ttttggtaga gacagggttt 180 caccatgttg gctaggctgt tctcaaactc ctgacctcaa gtgatccacc cacctcagcc 240 tcccaaagtg ctgggattac aggcatgagc caccatgccc agtctatttt tattttttga 300 gacaggatct ggctctattg cccagggtgg agtgcaatag tgcaatcttg gctcactgca 360 gcctctgcct cccaggctca aaccatcctc ccacctcagc ctcctgagta gctaggacta 420 caggcgtgta ccaacatgcc catctaattt ttgnattttt ggtanaaatg gggtttcgcc 480 atgttgccca gactggctgg aactnetggg cttcaagtga accttccace ttggncttcc 540 579 aaagtgctng gattengaet gageeceata eccateetn

<210> 6064

<211> 580 <212> DNA <213> Homo sapiens

<400> 6064

gagacagggt ctcactctat taccctggct agagtgcagt ggagcaatca tggctcactg 60 cagcettgae etcecageaa teeteteace teageeteet gagtaactgg gaccacaggt 120 gtatgccacc aagcctggct aattttttta ttttttggag agacaacgtc tcgctatgtt 180 gcccaggctg gtttgaaatc ctggactcaa gcaatcctcc cacctaggcc tcccaaagtg 240 ttgggattat gggtgtgagc cacagcgcct agtccagaga tttattgact ttattcactg 300 cettactttt gtettggett tetettttea aggaaaacaa gggeatetgt tgeeetegte 360 ctgcttaatt ttgattctcc tcagtgtagg gtcctgacct ggaagattat cctggctggt 420 cagttttgag agttcccagg gactagatgg ctctaactca gctggtccca accaggtgtt 480 attitatice ecticatece ecctitetea teccetaagi aacatetgge aatggitaaa 540 580 aactggtttt tggtgtcaca accaagccat gctttcgggn

<210> 6065

<211> 599

<212> DNA

<213> Homo sapiens

<400> 6065

gtagagacag gtcctcattt tgttgccagg ctgatctcaa actgcaggcc tcaagggatc 60 gtcctgcctc agtgctggga ctacaggtgt gagccactgn gcccagcccg tacacttttt 120 aaaaaactta attcttcaaa ttcacgaata ataattctac atattcgtgg ggtagaatac 180 tttgatacaa agaatgtaca gttatcagct cagggtaaca agcatatcca tcatctcaaa 240 cacctataat ttctttgtgt tgggaacatt caatattctt ctattttaaa gtatatatta 300 actatagtca tgctatagtg gtacacaaca ctagggctta ttcctatgtt attttgcatc 360 ctcccacaaa tctctcccta tcccttcctt cccctatct tctcagcctc tagtatgcgc 420

tgtcctaatt tttacttcta taagattaac tttttaaaac ttccacatga gtgngaacat 480 gcattgntta attttccatt ggtggcttat ttcacctact ataaaggnct ncagntcctt 540 tccatgttgg ctncaaaatg aaanggacat tctttttta atggctggaa tagaatccc 599

⟨210⟩ 6066

⟨211⟩ 581

<212> DNA

<213> Homo sapiens

<400> 6066

atgaaaaatc caaagtttat tgcaaattgt attttgcttc ccttcgttct tcatttttac 60 aggatttatt gatatccatg attttttcac agatgtactt gttgactttg gagagtctct 120 gtgcaatttc agtttcatcc acagtttctt gtgctattct gtcatacaaa cactctctga 180 cgatgcttag tttgcgaggc gagaggggtg gtttagggac tgcatctttc tttttttttg 240 tggcgacgcc tgtgacgctt ctgtttttca gaacatctgt tccccaaatc ataactgcca 300 360 agttettegt gtaettggaa teteettggg ttaettgtag etggtgeeat tteteeteat caacccaaat cccgcttccc agatggacct tgccattgtc taggatatac ttgtccatga 420 caggcgcagg agcggggtaa taggacgacg tatttgcttc ctcactgaaa gtgctccgta 480 acttccggct cggctcgaga cattctgact ttactttttc cagacaatgg cgggaccgtt 540 581 gccaanctta agaaccagca cgtcttggan cctccggtta g

<210> 6067

⟨211⟩ 581

<212> DNA

<213> Homo sapiens

<400> 6067

atctctgcca ggttttggta tcaggatgat gctggcctca taaaaagagt taaggaggaa 60 tcccttcttt tcaattgttt ggaatagttt cagtagaaat ggtaccagct ctttttgta 120

| cctctggtag | aattcagctg | taaatttgtc | tggtcctggg | ctttttttt | ttttttttt | 180 |
|------------|------------|------------|------------|------------|------------|-----|
| tttttttggt | agactattac | tgcctcaatt | tcanaagtcg | ttattggtct | attcaaggat | 240 |
| tcaatttctt | ccaggttcag | ccttaggagg | gtgtatgttt | ccagaaattt | attctctttt | 300 |
| tctanatttt | ctagtttatg | tgcagagagg | ngtttataat | attctctgat | ggttgcttgn | 360 |
| atttctgngg | ggtcagtggt | gatatcccct | ttatcatttc | tgattgtgtt | ggattcttct | 420 |
| ctcttttctt | ctttattagt | ctagttagca | gnctattaat | ttttttcaa | aaaaccagct | 480 |
| cctggatttg | gtaatttttg | aaagattttt | tggggctctg | gctccttgag | ttctgctctg | 540 |
| gncctaattc | tggaancngc | tactttgggg | ttgggttttg | g | | 581 |

<210> 6068

<211> 348

<212> DNA

<213≯ Homo sapiens

<400> 6068

| gccacagcca | gaaaaattta | ttttaaaata | gaaacataca | ttaagcttta | aaacaaccaa | 60 |
|------------|------------|------------|------------|------------|------------|------|
| ctnttaaaca | aaagaggaaa | gagcctttga | tcccagagtc | catgcggaat | gaattccata | .120 |
| cgtgtttgaa | attcacataa | ggngcactta | naaaaccacc | tgaaatggaa | atccaacagc | 180 |
| ccccttgcct | gtgagggctn | ccacccctgc | ccgcgtgagg | acatggccga | accccggaca | 240 |
| ctcgtgtgcc | gggagccacc | acagntnaag | gngaccggca | gcacccanct | ntgtgaccaa | 300 |
| nacagatgtt | cacacgtggg | ggcatngtaa | gcgctaccag | ctccaaat | | 348 |

<210> 6069

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6069

ctttttttt ttgagacaga gtctcactct gttgcctagg ctggagtgca gtggctccat 60

ctcggctcac tgcaacctct gcctcccagg ttcaagcagt tctcctgcct cagcctcctg 120 agtagctagg attacaggca tgagccacca cgcctggcta atttttgtat ttttagtaga 180 gatggggttt caccatgttg gtcaggctgg tctcgaactc ctgacctcgt gatccgcccg 240 cctcggcctc ccaaagtgct gggattacag gcatgagcca ccatacctgg cctctatctt 300 ataacaagtc acttccctca acatatcaag attaccagta tgaagggcag ttacttaatt 360 cctaatttcc tacaatgtta aagacatttt cctctttact tacagaattt aaggtactca 420 tattttcttg gttctaaaca attaacacag aaataaaaat aaactgaaat atgtttttc 480 tttttataga ctgggttttg ctctgcaccc aggctggaat gcatggtggt gacacagntt 540 cctgnagcct tgaatnctag gagntnaagc aatcttctg 579

<210> 6070

<211> 561

<212> DNA

<213> Homo sapiens

<400> 6070

ctggtgccta ccaaggtgag gtctttatgg tgtatagagg ttggtgagtt tcagagccag 60 tgtggccagt ctagtccctc ccctttccct agcccagcac aattccctcc attgagggcc 120 cacatcacct ccagagggag gagggagggg tcagaccccc ccatagcacc aatctggata 180 ggccactctc tgacaaaaca gagcgagcag tgccttccac aaacggggta aatggggcta 240 agaagggggg aggccttttc ctgtgggaga ccaagagtag caccatctgt agaaagaaag 300 ctggggggta agggaggcac atagatggtg gcagacagct gaggggtcct ggcttctctc 360 cccacctggc aatatgcaga cagcaccgtg cctgtgcatg tgcctgtgtg gctggagaag 420 480 tcttcagatt gcaaaccacc caaggggtga gggagcccca ggtgccccaa acatgtgggg taaagtcaag gtaagtgcat gtcttggagg gctggggtgg ggaatggaag gggntctggg 540 561 cncaaanatt gtnngnnatg a

<210> 6071

<211> 586

特平11-248036,

<212> DNA

<213≻ Homo sapiens

<400> 6071

| ggtttcaaca | gtactttgtt | tccagaacaa | agaaatgttt | ctaaccacat | cttgtacccc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ttcctcatca | actccagact | accacagacc | tttttccaaa | actgtgtgtc | acacatccag | 120 |
| gtcttgtgct | ttagagctgc | ctctcaggca | attttagcca | gccatttctc | caagtcctgg | 180 |
| atgtcagcag | agcccacgtc | ccctcttcca | cccttggcac | tgcactccag | gaactccact | 240 |
| ttgaggggca | actgtgagaa | ttcaaactct | ttgcctttct | tccccagctg | agcaggggca | 300 |
| gtgctggaac | tgtccagtgt | gctgggggca | gcagaacggg | taactcgtaa | ggtgttgagt | 360 |
| tctttctcca | gctgctgttg | aattaacttt | gctgattttg | ccattgcaat | atcttgctta | 420 |
| ttgcaggcta | ttaagaatga | tggtgtattc | ttcagaccca | tactgtcaat | gaggacttga | 480 |
| tacagaaact | cagccacatc | tttcacctct | cgctggaatg | ctgcactatn | cacaacaaac | 540 |
| caataccctg | gtgaagactt | aaaccggtct | aagactgaag | cctcaa | | 586 |

<210> 6072

<211> 560

<212> DNA

<213≻ Homo sapiens

<400> 6072

| cgctgttcca | aagtttaatt | aaaaacacaa | tttacaaata | tttaatatct | tctgaaaagc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| atttctaagt | taagaatgaa | aaagtatgta | cataatatat | aatcaaatac | caggcagcct | 120 |
| caacttccac | caggtccaca | ctcagcaaca | tccgtctttt | taggttcttc | agtgtcttct | 180 |
| gtcaaatcca | caaagttgtt | ttccatgacg | ggggaaggaa | tggaaatccc | cattgctttt | 240 |
| cgaactccat | acgtgcttac | gatatcacct | ggagttactt | gctgtgcaag | ttctttaaga | 300 |
| ttattggtca | cttgttcagc | aagatgcatt | tctctgtatg | agggacccaa | gagacagatc | 360 |
| atgttcggag | ggggtctggt | gctcaaacgt | tcattctggg | cttcctggag | ttccctgagc | 420 |
| aatctggtgg | tctcatcaag | tttcttctgg | aatatttcag | cttcttcaga | gtcaaaaact | 480 |

| tcaactggna | cgccaaaatt | tggtactggt | ttcancgctn | tgancctgnc | ttgagaccgg | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| agtccnaacg | ccctggnggg | | | | | 560 |
| | | 100 | | | | |
| <210> 6073 | | | | | | |
| <211> 544 | | • | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6073 | | | | | | |
| gctttaaaaa | ccacacagta | ggatttttgt | gaacataaag | aggttcaagg | gacactcagg | 60 |
| agagaaaata | agagcttaaa | gacaaaggcc | aattccatgt | aattgaaacc | atatctagtc | 120 |
| acaagtacat | ttgaaatgct | gcaaaaaaaa | atgtttttgc | aggtgaataa | atgtccagtc | 180 |
| ctctagtttg | gaattctgtt | taactcactg | tcaggcaggg | caggaaacaa | ggtcactctg | 240 |
| cttttttct | ctgtcaacac | tttgggagga | ggatggagaa | gaatatactt | cagtgtttct | 300 |
| tctccagtgg | gagagccctt | ccctcagtgg | tttaagaagc | cctctctcaa | cggggactct | 360 |
| tcattagcac | ctgctacggc | ctgagctacg | tgcaccctta | tctcttactg | agccagttac | 420 |
| acaggggcat | gactgaggcc | atgtgaaaat | ataattaaac | gttggtaaaa | attcacagaa | 480 |
| tgntaaatcc | cccanttnaa | ggctgnacgc | gcgcaaaaag | nanaaacncc | cggcttacca | 540 |
| aacc | | | | | | 544 |
| | | | | | | |
| <210> 6074 | | | | | | |
| <211> 560 | | | | | | |
| <212> DNA | · | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6074 | | | | | | |
| acagtttcag | gttttatatt | taagttctta | atctgttttt | agctgatttt | tttgacatgg | 60 |
| cataagataa | gcgtcaattt | tcattcttct | gcgtgtggat | atctggtatt | ctcaacacca | 120 |
| tttattaaaa | agattatect | ttccctattt | tatatteete | acctttotca | taaataaggt | 180 |

gactataaag gtgtgggttt atttcttcgt tttctatcct ctcctattga ttgatgtgtc 240
tgcttttatg ctagtatcgt gcagtttgat tataattgct tcataatgtt tttaaatcag 300
ggggcatgat gcttccagac ttcttcattc tgctcaagac tgttttggct atttggtatc 360
ttttatgatt ccatatggat ttaagctgta gattgctttg ggtagtatga acacctgtcc 420
aacatttatt cttccaatct ataaacacgg gatatctttc catttatttg ggntttcttc 480
actttatttc atcagtggtt tatagctttc agaaaccaag nttttancct ccttgggtaa 540
antaaaccta nggatttaaa 560

<210> 6075

⟨211⟩ 518

<212> DNA

<213> Homo sapiens

<400> 6075

ccagacttca atcaacattt taattaccaa gtctatattt agcaagacaa tgtgggagag 60 ataaagagga aggaaggggt aggtggggag gggttctcaa aggagctgac ccattttctg 120 cattggctgc agagccttgc agtcctggcc aggagttctt ggccttgtgc ctttcanaag 180 tgccgacagg catcaaggag gtacttacgc agctacagct cagtggcagc tgcaaacccc 240 atctacgaaa catgtcatca ggactgncct ttaatagtct tcctcctctc tgcagctgcg 300 ggaaagagga ctggccaaga atttcaggtg gggtcagtgt gactgcaggg tcaccgcaac 360 agctttggct gtggcgttga ggacggtggt gggaagccga gcagcaggga ncatggcagg 420 gatgtctctg gggaccctct ggatgggccg gatgttgggg cccttcantg gtgnccagga 480 tcccctntac cacttttggg gtaggcaaaa nncnnatt 518

<210> 6076

<211> 564

<212> DNA

<213> Homo sapiens

<400> 6076

aagcaggaga tgctttattt cagaacaagg tacaataggc cacacctctg tcctgcacct 60 gggaaccttg ggcatggatg agcagagcaa ccacaggtct gaagagacaa agcagaggaa 120 gcctgagcgt gcttctcccc tgtgtggagg ggcaggccgc cattgttgtg gtgtggctcc 180 240 tttcatctcc tcagctgtcc agggactagg gtatgaaggg acaagaaaac caggcccaat atcctctaaa attaagctga ggcaggagag ggacacccaa ggcaagggtg acaggccttt 300 360 cttgttggct ggagagccag tctccggccg gattctggtg ccaacggcaa aggaaggcct 420 tcttctcccc cttggatgtg accagacacg tgcccagagc tgcctgctca tggtgggttg tectgegttg gggeagtete aactaetggt eecacagaag aagtetteag gaageteact 480 taggagtnca ttcanggcat tgnttctngg aagtctttct taagggacnc ttttgcttta 540 ggtctgggct gttttnaacc ttcn-564

<210> 6077

<211> 565

<212> DNA

<213> Homo sapiens

<400> 6077

ataacacttg aaagtataaa atgctacatt tccaaaaata tatatatttt tttctgcacc 60 agcaccettg tatagtaaaa gtatetaett tttgtteatt tgttteaatg caetaeaett 120 tatctacaat ttcattacat gtatacagca aataggcaag catggctttt acatccttaa 180 tgatttttt ctatacaggg aggtttaaaa aaaaatactt gaacagtttg cccagtaatg 240 tgacacataa tgcatgtacc ttgttctcat atttttttag gtgtaaaata aagattcagt 300 aattttaact cagatattta totttttaaa aatagtgttg cagttttgtt atttgcatta 360 cttttcaaaa ctccttaagt ttttctctca tgggcacact ttcttctaat acttcaaatt 420 ttggcaggca atataaaaaa ngctgcaact tctgcccttt gagggcactg tagtgactaa 480 540 acagcatate aaatttgnat etttttgnaa teaetteaee aatggtatee tggnenaaag 565 gtcatgcntg gagcattatc cccca

| <210> | 6078 | |
|-------|------|---------|
| <211> | 562 | |
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 6078

60 attttagaga taggatetet etatgttgee eaggetgeat ttgaacteet gggtteaaag 120 . tgatcttcct gcttcagcct cccaagtagc ttggactaca gatacatagc accatgccgg 180 gcaagtctat ttgttcttta atatatcggt tagctgttca agacctttct gttcctgtgg cactttgcct tcattttatt atactgtcat ttattagcat tgattacttt tactactagt 240 300 tcctcaaatg tttggtgaag ctatacctta ttctctaaga cattagttgc tgtgacagat acatecagat gtttgeetgt caaacettae aatgtataga gtteatagee etaectaetg .360 cttctgcaaa gttctagaac ttatttcctc agaattatgt ctctaaactc ctaaatatgc 420 ctgtgctcta cagttccatc ccatcctang ccagtgagag angaagaaca gactcttnca 480 ctgggttcac aaaaaacttg gcttggagcc caatcttgat aaaggctgca ngggtctana 540 562 nangagtcac aggcaaggtg ct

<210> 6079

<211> 472

<212> DNA

<213> Homo sapiens

<400> 6079

ctaacagatg cagagccaca gtcaccaacg tgtggaattt ctataggaac agataaagag 60 actaaaacat gcaaaaatat atggcaattt gttgtgcaca taagataatc aggggagaaa 120 aggcaaatgt gtttaataaa tggtaatggg acaaactgac tagtatttcc atttggaaaa 180 aaattaatgt agcattcagg gaaaaaaaac ttcccagcca ggcgtggtgg ctcatgcctg 240 taatcccaac actttgggat gccaaggcag gtagatcact ttaggtcagg cgttcaagac 300 cagcctggcc aacatggtga aaccccatct ctactaaaaa tacaaaaatt agctgggcat 360

| ggtggcatgt | gcctgtagtc | ccagctaccc | agggactgag | gcatgagaac | tgcttgaacc | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| tgggaggtgg | agattgcagt | gagccaanaa | tgngccnntt | gnactncanc | ct | 472 |
| | | | | | | |
| <210> 6080 | | | • | | | |
| <211> 356 | | | | | | |
| <212> DNA | | | • | | | |
| <213> Homo | sapiens | | , | | | |
| | | • | | | | |
| <400> 6080 | | | | | | |
| cggtagtttc | ccaagtttat | tgtaagtggt | tttaagttaa | gtctcatcca | aacaagttat | 60 |
| cacacagcac | ttaaccaagc | cctgggattt | actgtcttga | tgactacacg | gctttgcaca | 120 |
| gtctgagatg | cttcagtgtg | caaggcagca | gctggggggg | aggaggggg | tcttcacagg | 180 |
| gacagctggc | aagagacttc | ctgaggcaca | tcagctacgt | tggncaattt | agggcacggn | 240 |
| ctggttctgc | anctttgaaa | ggnggattct | ttctattagc | acactttaca | agagggattg | 300 |
| naaaggatta | actcagtcac | canaancgaa | acaccacttc | anaaattcan | anacct | 356 |
| | | | • | | | • |
| <210> 6081 | | | | | | |
| <211> 569 | • | | | | | |
| <212> DNA | · | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6081 | | · · , | Q | | | |
| gtggcaagac | aacttgtaat | tacctgttga | agcattttta | tgagagttgc | ttaaaatcct | 60 |
| tgtcaagtaa | ttccaacatc | tgatttgtct | cagtgttgtc | atctgttgac | tgtcatttct | 120 |
| tattcaagtt | gtgattttc | tggttcttgg | tatgacaggc | tattttacat | cgtatcctga | 180 |
| accttttgtc | tattatttta | atcttttatt | tttagtaggc | agtcactcca | tttgtgttta | 240 |
| gcatgcaagc | cctggcttag | tttttgtggg | ctatgagtcc | agtggtaatt | tagtttttaa | 300 |
| ageetttgea | gtgttatttt | ggtctgcttg | gtttatctgg | tgctgctggg | gttcccgaat | 360 |

ggtccttcat gatgctactt tagggaaaga aggattttct cccaagccag gtcccatggt 420

| atctctggga | gaagggagtc | tcaggctcan | ggtaataaaa | aatcttnctg | gggtagaatg | 480 |
|------------|--|---|--|--|---|--|
| ctttttggcn | aaaggccctg | gatgcctaat | tttttaaccc | caaagaccaa | gnttaaggct | 540 |
| tggatgtttg | gcaatgggga | ttcctgatt | | | | 569 |
| | | | | | | |
| <210> 6082 | | | | | | |
| <211> 524 | · . | | | ` | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6082 | | | | | | |
| aacatttatt | atgattattt | tatttaaaaa | aaaagcccca | catctccggg | caataaacta | 60 |
| caatacagta | aaaagtagca | tctggtgtta | agacactctg | ccgacaggct | gcatgccttc | 120 |
| agtgtcggca | aaggctctgc | acagacatcc | acagtattcc | acactgcctc | ccccatttca | 180 |
| gaagtcccta | ctgaaatgag | aaggacactg | aggcacacag | gggaagagaa | tggcctgagg | 240 |
| ttagactgcc | acgaaaggca | cgtgggaact | gggcccagaa | aattccaacc | gttccataca | 300 |
| aaatgctacc | cagcagggaa | aaagagtcac | ttcttcttcc | aagtgaccag | taatgccaca | 360 |
| ctcatggggc | agcaagaagg | gtggcaaggg | aaccaagccc | tgacctgagc | ccagtgatca | 420 |
| ggccagagcc | caccaatggg | actngccaca | ggtccaggct | anccccttnc | ttcaccggat | 480 |
| tggcctantt | cnaaaccaan | ccttcttngg | gaaaaccatt | tgca | | 524 |
| | | | | | | |
| <210> 6083 | · | | | • | | • |
| <211> 556 | | | | | • • | |
| <212> DNA | • | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| | ctttttggcn tggatgtttg <210> 6082 <211> 524 <212> DNA <213> Homo <400> 6082 aacatttatt caatacagta agtgtcggca gaagtccta ttagactgcc aaatgctacc ctcatggggc ggccagagcc tggcctantt <210> 6083 <211> 556 <212> DNA | ctttttgcn aaaggccctg tggatgtttg gcaatggga <210> 6082 <211> 524 <212> DNA <213> Homo sapiens <400> 6082 aacatttatt atgattattt caatacagta aaaagtagca agtgtcgca aaggctctgc gaagtccta ctgaaatgag ttagactgcc acgaaaggca ttagactgcc acgaaaggca ctcatgggc agcaagaagg ggccagagcc caccaatggg tggcctantt cnaaaccaan <210> 6083 <211> 556 | ctttttgcn aaaggccctg gatgcctaat tggatgtttg gcaatggga ttcctgatt <210>6082 <211>524 <212>DNA <213>Homo sapiens <400>6082 aacatttatt atgattattt tatttaaaaa caatacagta aaaggtcactgc acagacatcc gaagtcccta ctgaaatgag aaggacactg ttagactgcc acgaaaggca cgtgggaact aaatgctacc cagcaggaa aaaggtcac ctcatgggc agcaagagg gtggcaaggg ggccagagcc caccaatggg actngccaca ttggcctantt cnaaaccaan ccttcttngg <210>6083 <211>556 <212>DNA | ctttttggcn aaaggccctg gatgcctaat tttttaaccc tggatgtttg gcaatggga ttcctgatt <210> 6082 <211> 524 <212> DNA <213> Homo sapiens <400> 6082 aacatttatt atgattattt tatttaaaaa aaaagcccca caatacagta aaaagtagca tctggtgtta agacactctg agtgtcggca aaggctctgc acagacatcc acagtattcc gaagtcccta ctgaaatgag aaggacactg aggccacaag ttagactgcc acgaaaggca cgtgggaact gggcccagaa aaatgctacc cagcagggaa aaagagtcac ttcttctcc ctcatgggc agcaagaagg gtgcaaggg aaccaagccc ggccagagcc caccaatggg actngccaca ggtccaggct tggcctantt cnaaaccaan ccttcttngg gaaaaccatt <210> 6083 <211> 556 <212> DNA | tttttgcn aaaggcctg gatgctaat tttttaacc caaagaccaa tggatgtttg gcaatggga ttcctgatt <210> 6082 <211> 524 <212> DNA <213> Homo sapiens <400> 6082 aacatttatt atgattattt tatttaaaaa aaaagccca catctccggg caatacagta aaaggtaca tctggtgta agacactctg ccgacaggct agtgtcggca aaggctctgc acagacatc acagtattcc acactgcctc gaagtccta ctgaaatgag aaggacactg aggcacacag gggaagaaa ttagactgc acgaaaggca cgtgggaact gggccagaa aattccaacc aaatgctacc cagcagggaa aaaggacact ttcttctcc aagtgaccag ctcatggggc agcaagagg gtgcaaggg aaccaagcc tgacctgagc ggccagaac caccaatggg actngccaca ggtccaggct ancccctinc tggcctantt cnaaaccaan ccttcttngg gaaaaccatt tgca <210> 6083 <211> 556 <212> DNA | <pre><210> 6082 <211> 524 <212> DNA <213> Homo sapiens </pre> <pre><400> 6082 aacatttatt atgattattt tatttaaaaa aaaagcccca catctccggg caataaacta caatacagta aaaagtagca tctggtgtta agacactctg ccgacaggct gcatgccttc agtgtcggca aaggctctgc acagacatcc acagtattcc acactgcctc ccccatttca gaagtcccta ctgaaatgag aaggacactg aggcacacag gggaagagaa tggcctgagg ttagactgcc acgaaaggca cgtgggaact gggcccagaa aattccaacc gttccataca aaatgctacc cagcagggaa aaagagtcac ttcttctcc aagtgaccag taatgccaca ctcatggggc agcaagaagg gtggcaaggg aaccaagccc tgacctgagc ccagtatca ggccagagcc caccaatggg actngccaca ggtccaggct anccccttnc ttcaccggat ttggcctantt cnaaaccaan ccttcttngg gaaaaccatt tgca</pre> <pre><210> 6083</pre> <211> 556 <2212> DNA |

<400> 6083

aatggtctaa atattctctt acttattaaa gataggaagg aaatacttaa ctagtactgc 60 attctgtgta tgtatgtgca tgtatatttg tgtgtgtgt tatgcaagct cacagctgtc 120 tgctgcatgt agcatcttgg aatatatctg caagataaga gaggtgctgt taaaatgttc 180

tcatattcta caggtgaaaa acaagggctg cattatttt aaactcatca accattcacc 240 cccctcgccc tagcaggctc gggaaaaaaa caaacccaag atttattca atgagaaaaa 300 aaacacaaaa cactattatg ccaaaccact gctaatttag aggaccaaaa ggacatgact 360 agatgaaata catgccgaaa atttttgagc agtgctgaag ggcgttctcg taacatatac 420 ctactttgca tggttgtagg cttcaatctc ttccagtaat acgctgtcgt tcaaagagaa 480 agggctggct ttggccnaac ttttagtcca tggccngttt anangcccca agaatnactg 540 ggnagttttg gnaggg 556

<210> 6084

<211> 551

<212> DNA

<213> Homo sapiens

<400> 6084

aataatggaa aagcttgttt tattgtaaaa attaccagta tgngacacag agacaagaag 60 caagcagatg ccattggaaa aatggtgcca gtagacttgc ttgttgcagg gttgccacaa 120 accttcagtt aaaaaaaaa aaaagaagca atttctgcta agcacaatga aacaatgtat 180 gcctgtgcgt atggagggc atggggaaat ttgggaggtg atgaaaatat tatcttgatt 240 tcacgagtgt atgcaggtca nattcattat acatcactga tatttcaaag ctgtaagaaa 300 aaacaaaanc aagattgatt gtgtgaaaag atgttcagca ttattaatca ttataaagac 360 ttgaaatgnt ttatttctat tcttgnctat tcaacttatt tgggataaaa gtggagaata 420 gttttcctta tcctaaattc acagcttgca caggcaactg aaatgctntc atgcgtttgg 480 acconatgga cactanotgg gtaaaccggt ccggaaaccg tttaccngtt aacttgantt 540 accactttta n 551

<210> 6085

<211> 528

<212> DNA

<213> Homo sapiens

<400> 6085

gaggtagggt cttgtgctat cacccaggct ggggtgcagt ggtgtcatca tatctcactg 60 caacctcgag ctcctgggct caagtgatcc tcccacctca gcctcctgag tagctgggac 120 tacaggtgtg catcaccatg cccagctatt ttttaaaaaa agatttcttg tagagatggg 180 gtctcgttat gttatccagg ctggtcttga actcctgcct caagcaaccc tcctgtctct 240 gcttcccaaa atgctgggac tatagatgtg agccaaaacg cttggcagtg gccattcttt 300 tggtttaaat cttgccttcg ttgtactaga atataatcca tctgatagga atgaatttga 360 420 ctattttatg tatcttcaag tccacagcct ctggcataaa gccagatgct tacagaaagc ttaataaata ggtattaaaa tggtttttaa aanggctggt anaaactgga ctggacttaa 480 528 attacctagn ttaagctttt gggaanggga aatgccctaa aaancncn

<210> 6086

<211> 561

<212> DNA

<213> Homo sapiens

<400> 6086

gagtgggagt ctggctctgt cgcccaggct ggagtgcagt ggcacaatct cggctcactg 60 120 caagegeege eteceaggtt caegecatte teetgeetea geeteeegag tagetgggae 180 tacaggcgcc caccaccaca cccagctaat tttttgtatt tttagtagag acggggtttc accatgttag ccaggatagt ctctaactcc tgacctcatg atccgcccgc ctcgacctcc 240 caaagtgctg ggattacagg catgagccac tgcgcctggc cggtacttga ttagattcta 300 360 attccagaga agatattggt tagtataaac tggttagtta taaacctacc acatatatat 420 tggaaaaatt accctgcgta attcagatta atttcataac tttataataa gcatttaaaa 480 ttttttttcc tttaatgcag gcattacaag gagccagtca aattattgct gaaatccgga gactcattnt tggngaaaaa aacntttgna nnnttggaaa cttgttgcct caaaacttgc 540 561 tagttactgc ctacctgagt a

| | • | , |
|-------|------|---------|
| <213> | Homo | sapiens |
| <212> | DNA | |
| <211> | 520 | |
| <210> | 6087 | |

<400> 6087

60 gagatgtagt ttcgctcgtt gcccaggctg gagtgcaatg gcacaatctt ggctcaccgc aacttccgcc tcctgagttc aaatgattct cctgcctcaa cctcccaagt agctggaatc 120 acaggcatgc accaccatgc ccagctaatt ttttgtattt ttagtagaga cgggggtttc 180 tecaegttgg teaegetggt etegaactee egaceteagg tgatetgeet geetgggeet 240 300 cccaaggtgc tgggattaca gacgtgagcc accgcaccca gcctcttaat tcttaatggg 360 gccaaataat cctttccctc cgaaatataa aaccaggaca agagaaaaat gtgagttctc tcaccaccta ttcccactac cttccccctt cagaggccaa gtttggcttg catgtgatga 420 tecetgetge tetgtgetge tectaceeat etteaetgae ceaacagaan gnggegettt 480 taatattatg cctnctttga nacctgntan ctgncaatac 520

<210> 6088

<211> 526

<212> DNA

<213> Homo sapiens

<400> 6088

gagatggagt ttcgctcatc acccaggctg gagtgtagtg gtgcaatctc ggctcactgc 60 aacctccgcc tcctgggttc aagcaattct cctgtcttag cctccaagt agctgggatt 120 aaggtgtatg ccaccacgcc cagctaattt tttgtattta gtggagatgg gatttcacca 180 tgttggtcag gctggtctgg aactcctgac ctcaggtgat ccacctgcct aggcctccca 240 aagtgctggg attacaggcg tgagctactg cgcccgacct caaaaattct taatacctgt 300 tgcacacaag tttttatgaa aattggcact tccattacaa caccgttctg tggtggcaga 360 ggacaccatt ttcaagagca atttcacagc atctaactga aacgaaactg atgatccaac 420

| aatgccacag | ctagacattt | atcctgnaga | attaggagac | caactgnatt | agaatatntn | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| tattgggcac | atttttgcng | gnaccaaacc | aaccaaaccn | ttaacc | | 526 |
| | | | | | | |
| <210> 6089 | · | | | | | |
| <211> 577 | | | | | | |
| <212> DNA | | · . · | | | | |
| (213) Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6089 | | • | | | | |
| atgtgcaatc | aaatttatta | atcagtagaa | aaacaacatg | tattcaattt | aatgntaatc | 60 |
| cacaaatagc | tcttggtcag | atttatgaaa | gtctgtgtaa | gttagaacac | aattttacat | 120 |
| ttttttctct | aagcaatatg | caaaagataa | caatatttaa | ctacaaatat | ataaacaatt | 180 |
| ttagtattat | actaaggatt | gtacttgaag | aagttacaat | gtaatggaaa | taataactta | 240 |
| ccatattaca | ggtctcaaca | ctatcatgtt | ggcccctatt | cagagactgt | gcagcgtaca | 300 |
| caattagtgc | agcagcagtt | cttggtataa | tatatgacaa | ccaagtttac | tggtaagctt | 360 |
| gaaaataatt | cttatgtaaa | aattagagat | tttatgaatt | tctgatggtt | cagtaatttt | 420 |
| ttttcagaaa | tgttatttca | gtcacttaat | ctgnccttct | atccatattc | cacaggtctg | 480 |
| ngagttaacc | tcatccaatt | gctgatgagt | cttctcctag | gttgcaattt | cttcttaatc | 540 |
| ctttacaagc | tcctttttct | ctnctagcac | tggngac | | | 577 |
| • | | | | | | |
| <210> 6090 | | | | | • | |
| <211> 589 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | 1 | | | |
| <400> 6090 | | | | | | • |
| gagacagagt | ttcgcacttg | tcaccaaggc | tggagtataa | tggcgcgatc | tcggctcact | 60 |
| gcaacctctg | cctcccaggt | tcaagcgatt | atcctgcctc | agccccccga | gtagctggaa | 120 |
| ttacaggtgc | ccgccaccat | gcccagctaa | tttttgtatt | tttagtagag | acgggtttca | 180 |

ctgtgttggc caggctggtc ttgaactcct gacctcaaga cccgcctgcc ttggcctccc 240
aaagtgctgg gattacagct gtgagccacc gtgccaggtc tagatcatat tttaaaataa 300
ggaactatta aaaatatgta tgccaaattt acatggatta tttcaaagta aagtattaaa 360
ttaacaagaa atttgtttca aaataggaaa ttcagttttc tgatccacca tctgggatgg 420
agccacaagc aacaggcaga ttttcataaa agtccttaca ggaagagcac cactctcaag 480
ggtgaaccct tggacacaac agaaaatncc aangcccaga tccngaataa agaaggaatt 540
tctnctgaca acaganactg actttgtggc agcactggaa aaagacatn 589

<210> 6091

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6091

gagatggagt ctcggtcgcc caggctgaag tgcaagggtg cgatctcggc tcactgcaat 60 gtctgccttc tgggttcaag tgattctctg cctcccaagt agctgggacc acaggcaccc 120 accaccacac ccggccaatg tttgtatttt tagtagagat ggggtttcac catcttggcc 180 aggetggtet tgaacetetg acctegtgat ceaeceteet eggeeteeca aagtgetggg 240 atcacaggcg tgagccactg cgcctggcct ttaaaaaaaat tttttttag acatgaggtc 300 tcattatgtt gtccaggctg gtcttaagct cctgggctca agcgatcctc ccacctcagc 360 ctcccaaagt tctgggatta caggcgtgag caaccgtaac atgaggtccc agcttcatgt 420 tcattttttg ttgttgctac aacaaagtac cctacattta gtggcatcaa acaccacaaa 480 tctaccatct tacaagttct nggggccaga agcccaacta nggctattaa ggttaaggca 540 aggtgtcana aaagcttcan tncntttggg ggangcttta aaaaaatg 588

<210> 6092

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6092

| 60 | aaacttctca | gggagttgaa | ggagaagcgg | cttttgggag | gggtgggtgg | gagattatgg |
|-----|------------|------------|------------|------------|------------|------------|
| 120 | ttaatagctc | aagctcctta | aggattcaga | gacagtaatt | ctgtttttga | agtgtccact |
| 180 | tcactgcacg | tcaaaataaa | attacaaagt | agggactcca | ggggcacttc | ataatttggg |
| 240 | agaaatcatt | tttagataac | aaggactaat | aaaaagaaaa | cctccccaa | tccctcccc |
| 300 | ataaggaacc | ccaccaggtt | ggagtaatag | agggggcaag | ctggattatg | ctacaaagaa |
| 360 | tccagtaaca | agatgcaagc | aggaggccca | tcactgactt | acagaaaagt | ctaaaacatc |
| 420 | gtgggggtgt | gttgtcttca | catagacgct | cttctgaaag | gctcaaatgc | acataaagct |
| 480 | gctggttctc | tttctttccc | tctgatggcc | caagtctggc | ggcggttatt | tngggggttn |
| 540 | tctggatagn | catgagtcta | aggcttcatc | tcttgaggaa | cangctgngc | cactagggtt |
| 583 | | ccc | gantgngtcc | ctagaaatnt | tncaaacccc | atctttggtc |

<210> 6093

<211> 561

<212> DNA

<213≻ Homo sapiens

<400> 6093

| agtagagaca | gggtcttgaa | atgctgccta | ggctggtctt | aaactcctgg | cctcaagaga | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gcctcctgcc | tcttttttc | cttttaaaat | aagaactatc | actgttttct | tctccttcct | 120 |
| ttttttttt | tttttctct | agcaactatt | gccaccctgg | ccccaaaagt | tatttataga | 180 |
| gtacattggt | agtaattata | cttacaattt | agtccatgga | gtgcaggacc | atgaggaact | 240 |
| atagctagat | aagattgtgc | cagaattaga | agaatagaca | ttttactttc | agagaccatg | 300 |
| actaaaagaa | tattaacacc | aagatgctcc | ttccatcagc | tggatgtacc | tttgggcttg | 360 |
| gaaagatggc | aagtatagga | gttgtactgg | aacggctgga | tcaaataggt | tgaaggcatt | 420 |
| tttgtcattg | tncatgtggg | gaaaagcaac | caagtaataa | gacacaacag | atatctctta | 480 |
| aggcccgcac | agntcacagn | gaccctcctt | cccagacaac | gtaanggngg | acagtnccaa | 540 |
| atttntccc | ctaactgggn | a · | | | | 561 |

<210> 6094

<211> 578

<212> DNA

<213≻ Homo sapiens

| | | • | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <400> 6094 | | | · , | | • | |
| gaaaagagaa | gtcatgtcat | tattaaaatc | ctcactatag | ngcaaatagt | anaaatttcc | 60 |
| aaggaatctc | ggagatattt | aagccaactc | attttacagg | ngaatgacct | gacacccaga | 120 |
| caaggngaaa | tgacatgcct | aaaagtcaca | caggagagct | agaagagaaa | aaaagcattt | 180 |
| tttttccca | aaacaagcag | acaggatttt | tcatgttaat | caaaaagaat | caagatcatc | 240 |
| agattaggaa | gaaatgagga | ataaaacata | cgttacacac | agatttaaag | aactagtcag | 300 |
| tctgctgccc | ccaaaaccaa | aaccttctnt | aaacatatgg | acatatatcc | atcaagatgc | 360 |
| ttacccttca | aatatcagaa | tcttggaaaa | ttcaatttac | aaatacatta | attgcattat | 420 |
| gatgatgaaa | taagttaatt | aaatgtgaaa | acatcaaaca | gcaccaatcc | tagaagttaa | 480 |
| gacaggaaat | ncnctattat | ttaaaatagt | cnctggattg | ggacagaatg | gaccattacc | 540 |
| ccttgccaaa | ccntttaaaa | aactttttgg | cctaaagg | | | 578 |
| | | | | • | | |
| <210> 6095 | | | | | | |
| <211> 588 | | | | | | |
| <212> DNA. | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | , . | |
| <400> 6095 | | | | ı | | |
| agttttṭaaa | aaatgctcct | caatgagatt | gtgttcaatt | ttttttcagc | attcttgcaa | 60 |
| cttttccctt | aagtatagac | ctgtaaactg | ggaaaattgt | acagtgcact | taattgtcct | 120 |
| atctgagcag | gtttatttta | tactcaacct | ctgtatctct | gattagagaa | aagatacaga | 180 |

tatcacagge agagteaagt getatttgaa caccaactgg ggeagatget agettaataa 240

aaaagaaaaa attaaaaaaa taaaaataaa aacaatgaat cctcttccat gttaacacaa 300

atagcacaca gtgtatggaa aagaaatgaa gtacaacttt tagggagcac agacatatat 360 actgctactc ttaaaattct ttctcttctt tttttaagaa tgtcacattt aaatgcaagt 420 cttaagaatt catagttaat catcattgta tcaatattag cttatatacc tgntctagtt 480 ttaaatggca aatagtccca cgttgngcta ataaatcata ttaatttctt ctggtccctn 540 tggcaaaccc tattgggagc ncttccttta aaangggttc canggctn 588

<210> 6096

⟨211⟩ 581

<212> DNA

<213> Homo sapiens

<400> 6096

gagacagagt ttcactcttg ttgcccaggc tggagtgcaa tggtgtgttc tcggctcact 60 gcaacctccg cctcccaggt tcgggtgatt ctcctgcctc agcctcccga gtagctggga 120 ttacaggtgt atgctaccac acccagctaa ttttgtattt ttagtagaga tggggtttca 180 ccatgttggc caggctggtc tcgaagccct gacctcaggc aatctaccca cctcggcctc 240 ccaacgtgct gggattacag gcatgaacca ccacacccgg cctctacttc ttcttttgag 300 aaatgtetgt teagateett tgeecatttt aaaateaeat tateattatt attitgetge 360 tgaattgagt teettgtata tteeggatat acaagteeet tgtaagatga atagtttgea 420 gatagtteet geatteaaca ggtnggetet tggtetgatg gtnetttget gggeaaaace 480 tttttagttn gaaatcgncg gcttggcnat ttttggngcc cgggcttttg agggcttcac 540 atccaatttt gcccaaataa gggccnaaag gttncctttt c 581

<210> 6097

<211> 591

<212> DNA

<213> Homo sapiens

<400> 6097

ccacaaagaa cttgggattc tttggcctta ctggagtttt gttatagcta acaccagtct 60 gtattaatta agaaggcact attaatgagg gacggaaaaa tctacctgta cacaaaattc 120 tgtactttaa cagcatcttc aaataaacct ttaaaggata atggtttacg atcattttaa 180 gcattttaag aactgagtta tttggacaag aaccatacaa acctttttca ctctgccatg 240 300 aatgatcgaa gaatcctgct ctaggactgg atcttttcag agaaaataac ttatcacctg ttttactgca gttgctacta gcaattatta tatagcatgt gctcttcaaa acagaaataa 360 420 aaattgatgt gtgaaatccc tttcattggt tttggtaaac catccaattt tgggctgtca 480 tttcaattat aatacagttg tattttaaga gagaagataa tccaatataa caaaggcttg ataaatattg ncactctgta atcaggacat actaaactgn aattcaacga atttccaaga 540 591 acttttcagg ttttggnccc caggganaaa tcttgggttt gccaaaaaan g

<210> 6098

<211> 587

<212> DNA

<213> Homo sapiens

<400> 6098

gaattttcta aatcctaaat aactgaaagg tacatccaaa tgtctgatat ataaatacac 60 aaatatattc cttatatata aaccaaccaa gagctagggc aggaagagaa agagcgaagc 120 tgtcctgtgt tcacactaat gtccgtgttt tacaaggtga caggtgtgtg agcaccagga 180 aggatacatg atatccatga tagtggcctg atagctatga cacttgaaca cagtgaagaa 240 agtgcagggc acagggccaa gaaggaaatc tgaggagaa gaggtcacct tgggacttga 300 gtaatggata cttcagactg gctgttttca ctctaaaccc tgggggttac gcttcctcag 360 420 catgctgcct gtatatgctt tatcggtgct gatgcccaac ccttcatctt taaagtcttg ggaccactet tetttggtgg tttcctettg etcagggtag etatetgeae tgaatceage 480 attetetgee aagacageag ggateetegn etteatgaaa aeegeaggaa eatggttetg 540 587 gctttggatc acacgangta accgaattat cttcctgggt tttgggg

<210> 6099

<211> 587
<212> DNA
<213> Homo sapiens

<400> 6099

acgaacatat tgctttattt cttggtagta aattaaggct ttctagattc atacagcacg 60 cagtgatttg aacattagaa ttaaaaaaca acaacaacaa acaatgagca ttcaatttag 120 180 cagagccagg aaggaagcaa tgttttaaaa cagataaatt tcctagtgag acctttggtt 240 tggtctccaa aaatctgctg agctgtttcc ccagtaacct ccatcataga ttcccacccc aagggagaac agaatggatg aacaggagac tgggagaaaa gaagaaactg gcaagacggt 300 atgtgctggg caatcagtgt gaacagtcag ctttgtctca tgtttggaag acagtttagg 360 420 tgatgcggtc agggattcat tctctggatc tccctgctca ttctcagagt attaaaccag ctcactcgga agaccccagg gccaaggatt aagggacaat cctttgtgac acccaaatcc 480 tgaaacttca aatagggtca caagtcacag agctgaggaa tgctggcttt aacttcttta 540 587 tgggtttaac tctgggggtt tncctanatc ngggctactt aaaggat

<210> 6100

<211> 580

<212> DNA

<213> Homo sapiens

<400> 6100

aaaaattatt ttagacacga ggtctcgttt tttgcacggg ctggtctcaa actcctagcc 60
tcaaacgatc ttcccagctc atcctccaa agtgctggga tcacaggtgt gagctacggc 120
acccagcctg tttgttttga atataatgta ggatgaagaa aaatcaagcc tttggtggtc 180
cgtgtctctc caaaggttga gtggagaagc gtatggtgag aggcccttgg tggccatgga 240
catcaggcca cacaagccac agagggcttg tggagatgct tatggctggg aacagactag 300
gaacaaacac gggtgtggtc aaagctcaat cgctgagcac tcggtaactc tgcaggaagt 360
taaaactttc acaacgacca tccatgtggt tgactgggac atacaggcag agctccttct 420

ggaaaatgga tttcttccac tgnttggcca ttttaagtct aatcccaata aagtttggca 480 gcaaatcaga gcccaatctt ttatcagggg gctttaagga tttaacggan ggacatttta 540 atggccttan ggaatgataa tgncntgang gattnctttg 580

<210> 6101

⟨211⟩ 576

<212> DNA

<213> Homo sapiens

<400> 6101

gagatggagt ctcactctgt tgcccaggcc ggagtgcagt ggcgcaatct cagctcactg caagetetge etceegggtt caggecatte teetgeetea geeteecaaa tagttgggae 120 tacaggtgcc cgccgccacg gctagctaat ttttttttgt attitttagt agagacagtg 180 tttcaccgtc tctactaaag atcaaggatg gtcttgatct cctgacctgg tgatccaccc 240 acctcagcct cccacagtgc tgttgttagg tatcttctaa ggaggagaca atgtctgaga 300 cagggactgt gcagagcctc tgtcttctga agcacagatt gctttggatt tggcaactgc 360 tgtcatttgg gggttgcctt gcttgctgcc ttggtgcttg ttagttttgt tctccatact 420 ctagetecae etteteagga caetgetgee etaacagaag agaecageag etcaeagage 480 cttcctgagt tcagcatctt tatgtgcaac tntgcaaacc cttttcttaa gcttntgngt 540 576 ggatggttgt gggataacct gtggatgaaa cttttt -

<210> 6102

<211> 577

<212> DNA

<213> Homo sapiens

<400> 6102

gaggcagggt cttgcgctgt cacccaggct ggaatgcagt ggcaccatct tggctcactg 60 caacctccac ctccgggtt caagcgattc tcccacctca gcctctcaag tagctgggac 120

cacaggcacg caccaccatg cccagctaat tttgcattgt ttgtagagac agggttttgc 180 catgttaccc aggetggtct cgaactcctg ggctcaagtg atcggcccac ctgagcctct 240 caaagtgctg gaattagagg cgtgagccac cacgcctggc caaggatctc ttacttcttg 300 aaattttcta ttggcttcta cagcttcatt tatttatcta cttcagggtc acaaagctct 360 ggctgntttt ttcttgacct tttatagcct tcttctctgc ctgctcctca aatactgngt 420 attictggcc tiggtagact tigntictate tiaacacatt ticcctgagt ggictcatet 480 actictaagg gitaatitac cacgiacigg atatcicgag aagcictiat aigaataati 540 tgggctcaaa ttttctccca tggcannaat ttttttn 577

<210> 6103

<211> 562

<212> DNA

<213> Homo sapiens

<400> 6103

agntggcttt ctcttttaat caaaaacata ctttgntaca gagttctcaa gaaaggntcg 60 actatttttt agccacagac tttaaccagg caaaagtata cagaaagcca caaaggaact 120 cctgggactt tcaactgacc agttgtcccc aaagcanaag ctacgagngg ctcttctctg 180 gcttctggca tagctgcatt cctctgaatt taggggagga aacagttggg aaataccacc 240 accaaatntg teeceaacce ceaacteact tnttetaaac tgggetntge ageecaccag 300 gttttcatca tctataagca ttcacacttt tcccttaaat cacatgtcca atgcattgaa 360 cagaactcaa tacttgaaga aagtttgcca actccatgtt tagtcttaat caatccaagc 420 ccgnggagtc cttntatcaa tggccagcag cctttgcaac agcagctggg ttcatccctt 480 cntttcagnt nececaaagt ggeetttace agaatteeaa nececaacet taaneeagee 540 ccaaggaagn ttccaggtct ta 562

<210> 6104

<211> 582

<212> DNA

<213> Homo sapiens

<400> 6104

gagtetetga cagaaacaga getetacaaa etttetggeg aceteccagg aaaacagaag 60 gaagetgtat cetgtaette eeetgggate taatgaaata tacageetet gggettettt 120 caatttggac tttcagatcg ctaagccagt gaaaagggga tcctagctgt cacaaacgtc 180 240 acatggtcag ggtcacctgc tgctcggggg ttctcatgcc agttgttgac ataataagcc 300 ccccttacac tttaattaca attcacagtg tgcaaactat gcaatctgct ttaaggcaga 360 420 aagggtgtgt ccacatgact aactatatgc agatatctgc cgtttgggag acagtgggta gcatttgcca aaatataaaa tggtgttgct gaccccaatt ctgggagatg gtacttgaat 480 cttactgngc tctgagactt cttttcatan gccacaaaaa ggnaatgcca tatacctnat 540 gngnagcatt ttacaattgg gtaacccnat tttttttac aa 582

<210> 6105

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

<400> 6105

gagatgaagt ctcactctgt tgcccaggct ggagtgcagt gcagtggtgt gatcttggct 60 cactgcaaac tccacctcct ggagtcaagt gattctcctg cctcagcctt cagagtagct 120 gggatcatag atgcccgtcc ccatgcctgg ttaatttttg tatttttagt agagacaggg ~180 tttcaccatg ttggccaggc tggtctcgaa cttctgagct caagtgatcc acccaccttg 240 300 gcctcccaaa gtgctgagat tacagcatga gacaccatgc ccagctgtga gcctgtatct 360 taatcaaagt cctgagaata accttgaaga agactccctt gcaatgagca acaacagaag aagcaaggga cctggaatct ggcagacctg ggttcgaatt ctggctctgt cactttctgg 420 480 tgaagtgact tgagtaatga acatgagcct ttctgggtag cgttacagca caaagcaatt 540 tgaggaataa aatgaaagag cacgtgtcta agtgcctaac aatgcgcttg acacantgcc

| | | • | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| gggcttaanc | ttatttnnca | cccanncttg | anc | | | 573 |
| | | | • | | | |
| <210> 6106 | | | | | • | |
| <211> 590 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | • |
| | | | | | | |
| <400> 6106 | • | | | | | |
| gtatggaaac | atttgacttt | atttaatatt | gagacaatac | atatagttct | gattaagagc | 60 |
| atcagaaact | ctgaatcaag | tgtattcttc | ttggtcaaga | gcttaataaa | agtccctctc | 120 |
| ttaaaggctc | atcttgatag | gaatagaaac | aaaaggttac | cccatagttc | tcttacattt | 180 |
| ggaagttagc | tatatagagg | gtacaaggat | attcattttc | cttcaggaca | aagtcatctc | 240 |
| tgtacgccct | ttattgttga | attgcagttt | gatttagggg | attagaggtg | gtatggtacc | 300 |
| agtaattgag | taatggtgga | aatgtgaaag | tcagtcacag | gactctcatt | ggtgccagtg | 360 |
| tcatagttaa | gaaagaaaga | aagaaagttt | tatatatcct | gtaatctaga | ctggaagcta | 420 |
| aataattgct | aggaagcaaa | cttaagtgat | agctggtaag | ttttttggtt | tggttttgac | 480 |
| cagagatgat | gaagtaggtg | gatcttttct | tgggttgctn | ctaaactctt | tcattttaac | 540 |
| ctaataattt | tagtttggng | ccaaaagtaa | atgctggttt | gggaccttaa | | 590 |
| | | | | | | |
| <210> 6107 | | 1 | | | | |
| <211> 576 | | | | | | |
| <212> DNA | • | | | | • • | |
| <213> Homo | sapiens | | | | | - |
| | | | | | | |
| <400> 6107 | • | | | | | |
| aaagactata | gctaagaaat | gaaaagaaaa | aataaagtaa | ctgatttcct | tgggcagcag | 60 |
| aattactggg | agacaggggt | tgtacactaa | atattctaaa | tgtttctaaa | aatgaaaata | 120 |
| tattattcaa | gagcatgtag | tacttgcaaa | tgatcaagca | tttccaaaaa | aaactgccca | 180 |
| | | | | | | |

gccctattaa atttataaaa tatttctgca atacagctgg aataattaca aggtacacaa 240

catattacag tatttgttgt atctattatt tgaattgatc tacacactaa catatgaaaa 300 tacgtgctaa aatttttgga agaaaaggag gtttcctagg acacggagag gggaggttag 360 gggcgacaac taatgagtat ggcattgctt tgggaggtga ttaaagtgtt ccaatatggc 420 tgggtgcggt ggctcgcgag gtcaagagat caagaccatc ctgccaacat ggtgaaaccc 480 cgctctacta aaaatacnaa aaattacccg ggcatggtgg caacttttgt agtcccanct 540 actggggaag cttagccggg aatcccttaa cctngg 576

<210> 6108

<211> 578

<212> DNA

<213> Homo sapiens

<400> 6108

gggtaaagaa aagaagttta attggctcac ggttccacag gccgtacagg aagcatggct 60 ggggaggcct caggaagctt aaaatcaggg cacaaggtga agaggaagga ggcacgtcca 120 catggttgga gcaggaggaa gagagcgaag agggagtgct acacactttt aaacaaccag 180 atctcgctaa gaactcacta tcacgacaac agcaaggagc aagtctgccc ccatgatcca 240 atcacctctc accatgcacc tcctccaata ctaggggatt aaaattcaac atgagatttg 300 agtggggaca caaatccaaa ccatatcagt gtccatgtct attcctaatt agcttttgac 360 tttgtactca gcgtattaat ttctgagagc tactgtaaca gtgccaccaa ctgggtaact 420 gtttgttgta aaacaaacac atcctctcac agttttacaa ctggttgttg taaaaccaat 480 gcattctctc acagttcttg agctangtgt cttgaaatna aagngtgggc tggacatgct 540 cctttgaagc cttgaaggaa aatccttggc tggctttt 578

<210> 6109

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6109

ctttctttct tctttctttc tttcctttct ttctttctgt cacatatgat agtttaagaa 60 120 aatagttcac caaaatactg tettatttgt aaggaagact teatgatatg aatagetaac tattctgaat ttacatattt tccatcctag tataatgtac aactccatct ctcaaaagtg 180 taaatttttc acattcattc aaaactcctt agagagtaag tagtttcatt cagagttacc 240 300 tgattgtagc ccaatttacc ttaaagtctt tcttcagaag gaagaaaaca aaaaagtaaa aatcatctct gaacactcct ttaggagata gacttcagtc agccaaagga tagagtagtc -360accaggagte cteagagtee tettggteae etetetggtt teatttetgg aaateettae 420 ttaatctgag gtaacatgct tcctgctgac tggcggatca cacatacacg atattccccc 480 540 tcagtctgac acacagtccg agtcaataag ctgccagact ggcggnctnt aaagaaactt ntnaaccaag aaccttttca aaacttccta ggnttaacct n 581

<210> 6110

<211> 578

<212> DNA

<213> Homo sapiens

<400> 6110

ggctgttgag ttgcaggtgt tccttatata ctttggatat taacccctca ttagatacat 60 ggtttgcaaa tattttctcc tattccatag attaccagtt cagtctctta actgttttct 120 ttgctgtgca aaagcttttt aattagatgc agtcctgttt gtctattttt ttaaattgct 180 ttcgctgtag ctataagttg ttttctgtta agactttggt aaccacaaag aaaataccta 240 tagaagatac acgaaagaaa aaaaaaaaag gaaggatcaa agcaaaatca acaaatcaca 300 aaggaagaca gcaagagagg acaaaaggga caaaacaact acaagaaaga aaccaattaa 360 caaaatggaa ctagtaagtc tttccctatc aataattact ttaatgtaaa tggagtaaac 420 tccctaatca aaaaacatat agtggctgaa ttaattttaa aaataagatc taactatata 480 ctatctagaa gagactcact ttagatttaa ggncaccagg ctaaaagtga aggaatagga 540 578 aatntattcc tgccgatgca accaaaganc ccaggtgg

<210> 6111
<211> 569
<212> DNA
<213> Homo sapiens

<400> 6111

60 ctcattgtaa cactcgtttt tatataaata ttcgcaagtc atgttacaga agaagcccca 120 ccagggaaaa aagtcaacgt tagggttttg ttagattgac ccctgccttc taggttgggc cccagcctgg aggcgcctgc tgctttggga aggctggggt tgctgccgtg aggctgccga 180 240 agaagetgee tgtgtegeee acceetggge egaceeeett etttggtgtg tggtacatgg 300 tgaccttctc tggccaccct tagcctgggg cagggttttg gagaacaggg ttcagggaag 360 cagggcccag gagtcctggg ggcacttgga aatggggtga aggggactga gccattaaga ggtggtggag tctgagattt agaggctgag cctttggggg tgggggcaga gtgaacggga 420 acatgttggg ggaaccgggg cttgtcagcc aagtaggaac ttctgccctt nccttcagcc 480 caagtcccan gtcctggccc ctgtgggcat ttctgntggn ccacnttcca nggagaaacc 540 569 tgatgnccct ttccggtttt tcccttgaa

<210> 6112

<211> 562

<212> DNA

<213> Homo sapiens

<400> 6112

cacttgaatt ttaaagttta tttactttga agtaaccaac ttaaaaaang gcctgagtta 60 agtgtattaa aaagaagaaa tagtcgtaag atggcagtat aaattcatct ctgcatgtan 120 aaaccggana aaaagcaagt tcagtacttc accaaaaaat tattaanatt ggcaaagtnc 180 aagtgtaggg ctgtgactgc anatctggaa gggctgaaag gtagatctat gttcctttaa 240 ctatagtcca ccatgagggc ttcgcaaagn gtgttcccca gtgctgatgg tctgtgaaat 300 ttacttattg cccagtntag agaatgatgt gttagttgac caaatacttg ttctaaatat 360

| attgttggca | cggatgtggt | gaaaagggaa | cacttttaca | ctgctggtgg | aaatgtaaac | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| tagtacaacc | actatggaaa | acagtgtgga | natccttaaa | gaactaaaag | gtagaactac | 480 |
| catttgacca | gcaatnctac | actagggttn | ttcccngagg | gaaagaaagt | cnttntttga | 540 |
| aaaagaatct | tgcncccccn | tg | | | | 562 |

<210> 6113

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6113

| aaaaatgatg | aatatttat | ttttcagacg | tccatatttt | aaatgtaata | gttttataaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| agaaaaggtt | ggcaacctgt | taaggagatc | ttcatgtgaa | aaatacatgt | agaagtttta | 120 |
| aaaatttgtg | gatataattg | tcattcagaa | ttaagcaggt | tgattgctgt | tatctagatg | 180 |
| ggtctcttcc | tttatgtttt | tcagtcacat | aatcttgatt | tccatagtta | tcacatgtac | 240 |
| ttaaagaagt | taatcaatgc | ctatatggtc | caaggtataa | tttgcacaca | gtagtttttg | 300 |
| gtttttatat | tgtggatcat | atgtatcaaa | ggtaatattc | ataaagaaca | atgttatagt | 360 |
| tggctacaaa | gggacaattc | cacatttcta | tacagggaat | attttaaggg | tagagttata | 420 |
| tcagctatgg | tgattgagtt | taaatatccc | tgcagggtca | ggaacaaacc | agctttccca | 480 |
| taagtcgttg | tgaacactag | ggaagtccca | agggttatgn | cttncattnc | agtggagtaa | 540 |
| nttanctinc | tgcanaaaag | cttccaaaat | ctgggatttg | g | | 581 |

<210> 6114

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

<400> 6114

atgagatgag tttcgctctt gttgcccagc ctggagtgca atggcacgat cttggctcac 60

tgcaacctcc acctcccagg tttaagcgat tcttctgcct cagcctcctg agtagctggg 120 attacaggca tgtgccacca cgcccggcta attttatatt tttagtagag atggggtttc 180 tccatattgg tcagactggt ctcgaactcc cgacctcagg tgatctgccc acctcggcct 240 cccaaggtgc tgggattaca ggcgtgagcc accgcgtccg gcccccattt tctttttctt 300 tcttctcttt ttttgagacg cagttttgct cttgttgccc aggctagagt gcaatggtgc 360 catctcagct caccataacc tctgcctccc aggttcaagc gattctcctg cctcagcctt 420 ccaagtagct gggattacag gcatgcgcca ccacgcccag ctaatttgga ttttaagtan 480 agacggggtt cttcatggtg gtcaagctgg gctngaactt ccgacttagg ngatccanct 540 gentaacetn ceaaaggett ggaatacagg gan 573

<210> 6115

<211> 560

<212> DNA

<213> Homo sapiens

<400> 6115

ccttaaaacc actgcatacc acacctggag gttgtgagaa ttaacctgta atgaagatga 60 gtggccagca ccaggacggg gacgtctgca ataaacatgg caaaatctga aaagcaggtg 120 aggtcgacca ggctcccagg ctcccaggct gagacaacag aaccctcagg gctgtcttca 180 ctgagacgct tgatttgttt tgttttgatt ttggttggaa tttgatttga gggagacatg 240 atcccaccac attitacatg aacaaagcaa atctgacatc cacgcccagg accaagccaa 300 gaaagaggcg gtacaatggt gcggccagga ggctggctgg ctgtcaccat cggcagggac 360 agtaggagaa agccaagagc cacagtgacc cttccacaga ccacagtcct ccctactgcc 420 acceactect tgeeegagee aaagteetge tttetetgga catacteeat tegeeaaata 480 cctangcccc taccatgtgc cangenaagc acaaggnggn attggccctt gccctttttg 540 gaanaaaccg ggcattnaag 560

<210> 6116

⟨211⟩ 570

<212> DNA

<213> Homo sapiens

<400> 6116

aagtgttaca aattttatta aaaattaaca tttcaagagg tcatacgtat acaaatcaaa 60 ctgcaaaaaa attccaggca taaaaactat tatctgggtt agtgtgccat ctttcttctc 120 180 caaatgtcaa aatgtccaca aaaaaagtct ttagaaagtc aaatccactg tccatttgtg 240 ttgggtaaga aacctatgtc ttcattcact gcatggaatc catgttaaaa gaaccctgtc 300 ttggttgtat attatcacag gactcttgta ttaatccatt tttcctcaat tccccatagt 360 agactgccat cttgatttct cagtggtagg gtccatttga aactcttcaa gctgactggg 420 tgcttgatga aaaaattaaa agaaaaaaac gctgttggca tcttaatctt ttaaacagaa 480 aacatccacc caccttgaag atatcctacc attccccaaa cttttatttg gaacagcttt taactttgaa atgnaaagtg natgcaaaca cacncncact tettgataag actggegeee 540 aagtancaaa gtccttgnac taccccagat 570

<210> 6117

<211> 560

<212> DNA

<213> Homo sapiens

<400> 6117

ggtcataaat acattttatt tcattagaaa tgcataatta cagtgtttaa gagcatttcc 60 cctagaaaag taggtcagca ataccccatc ggaaccgaga gctggctttg caaacacctg 120 cctcatgaca ctggacagag cacacagcaa agggctcccg tctcatgaca ctggacagag 180 cacacagcaa agggctcctg ctactcccct gggatttttt ttttcaaatt ttcttttttg 240 ttataaacac catagcaaat taaaaaaagc tgtttaaaca gaaaaatatc atagttcttg 300 360 atttcccgcg catatgcgac gctctccgca ccgtgcctcc cctcgtgctc cgacaccaac 420 agcaggactc aaacgaaagg ggtctccggc tgggggcggc ggcggctgct ctttcagttg 480 ataggatgct gttccccgcg gaggcagcgg ccttcagacg cacttnagca gaacacgtgc

| agcgctgctg | tgccaaggcc | tgaaaacagg | gcccttgggg | gccggnccna | agcggacccg | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| caagggctct | ggggccatgg | • | | • | | 560 |
| | • | | | | | |
| <210> 6118 | | | | | | |
| <211> 553 | | | | | | |
| <212> DNA | | • | | | | |
| <213> Homo | sapiens | | | | | |
| , | | | | | | |
| <400> 6118 | | | | | | - |
| aataaagttt | gcttgtgatg | atgaccttct | gtgctctgga | acttctgttt | tacaaaaaat | 60 |
| tggagttctt | acggtccttg | tccttcctca | ggttgctgcc | tgttgccaga | aaggactggc | 120 |
| tgtgaaatat | ctcggaggta | gctttctttt | tagagaaagc | aattatttct | tcttccaaaa | 180 |
| gtcttctctt | ttcttcaagc | ttcattctct | cttcttggtg | aagtctctta | aggtgctcaa | 240 |
| atttggcctg | tagctctctc | tcagcttctt | tcaatatggc | ttctttctcc | tttactcgct | 300 |
| gcacaaacat | ctgtttcatt | tcttcttcct | tcctctgacg | ttcaccatgg | aactcatgtc | 360 |
| ttttggcttc | ataggtctct | tgaacactga | ctggcttgtt | ttctgggccc | acatctgtaa | 420 |
| agcccatttc | ctccagtttg | cagcgcctgt | aaagctcata | gtgcctggta | tgggtctgct | 480 |
| ctcgcaggcc | tncatatttg | naccaatgag | catttnccgc | actttaccaa | gccagggggt | 540 |
| ttcattttnc | ctt | | | | | 553 |
| | | | | | | |
| <210> 6119 | | | | | | |
| <211> 559 | | | | | | |
| <212> DNA | * | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | · . | |
| <400> 6119 | • | | | | | |
| aagatggagt | ttcactcttg | ttgcccaggc | tggagtgcaa | tggggcgatc | tcggctcatt | 60 |
| gcaacctccg | cctcccaggt | caagcgattc | tcctgcctca | gcctcccaag | tagctgaaat | 120 |
| tacaggcacg | cgccaccacg | cctggctaat | tttattttta | gtagagacag | ggtttctcca | 180 |

tgttggtcag gctggtctcg aactcctgac ctcaggtgat ctgcccgcct cagcctccca 240
aagtgctggg attacaggcg tctgcaaccg cgcccagcct agtgttttgt atgtttattt 300
tctcacttaa tatactatgg aggtgtttc ctatattctt catccttaac agacaatact 360
gcattgactt tatcataatt tgtttaaaca atcccataat aatgaacatt taggctgttt 420
ttagtcctct gctgttaatg ctatagtgta catcctagaa tatccatctt tataaatttc 480
tctaatttcc ttgnaataat ggttttaagt gnaaaaatgg tgggtcaaaa aatgaatcgn 540
atttnaaatg ggttaatat 559

<210> 6120

<211> 476

<212> DNA

<213> Homo sapiens

<400> 6120

caggccagta gttctaaaca gaccactcca gctgggctgt tttcctcta ccctcatgca 60 gcatttgctt tgggacaggc cactcctgat aaccagccaa gtgaattcat ctcacaggac 120 tcagggactg cccgcctggg agcagctgtc attggacact ggagtcaaga ggaggcacag 180 tctcctgcag tgaggggagg tttgcacccc accttgggag tgtggccttc atgaagacag 240 ctgacttcaa gggcacgttg agagccttca tctttctatg ccaaattgat gtgactaagt 300 ggctgttcca agcagagccc agtgggcaaa gatcaggact cctatccaca ttctgagtaa 360 gggaggatgg agcccacctt tgtgcctctg gtgagaggca gtgcgatata acaattaaat 420 gcatgagctc tgaacttagg tgcctggacg caaatggagc ctatagctgn nnnnnn 476

<210> 6121

<211> 562

<212> DNA

<213> Homo sapiens

<400> 6121

gcatcagact gttgcctccc aagattcagc tgtcaaaggg caggtccctg ttctcagtag 60 gtgagggaat aaaactcgga cactgggcca tctcagaaca catctcagcc acacacaagt 120 ggagaccaga tecetteett eetggtttga tgattggtgg gatetteete tgageateet 180 gaacatattc atttaataaa tatttattga gcacctgctg tgtgccaggc actgtttgat 240 gtgctgcaga atagagcagc aaataagagc aaaagtttcc accctcgtgg agcttatatt 300 ctagtgcttt atgttgaata gtgctaagtg tggaagacaa ataataaagc agaatggtat 360 tctggaatat cagggtaagg atgaaggtca gtttttgaat aaagacctga agcaaggtca 420 ctggcagtga tattttgggg aagaacattc caaacagggc atggcttggg tgttggacac 480 gtgttagang gacagcatan gctggtatgg ctgcantgga atgtcccaag tctaacccca 540 562 aattgagttt anaaaggctt nt

<210> 6122

<211> 487

<212> DNA

<213> Homo sapiens

<400> 6122

atgtaggtaa gctttttatt attggtttct ttacaggaac aataatccaa acaaatcttg 60 aaccaatcta taaacagaaa acctgttata taaattatta tctatttttg caatacatca 120 aaatactgga ttgatgaaaa taaatagata acaaaaaaca atatacatca tttctatgtt 180 tgctatcaga ccccacaagt atgtttgttt ttacaattca ttataggtga aaaacaaact 240 gaaacacaac aggtacgtac aattacgcca ctgttaagga ctgcagatta cacgtgttaa 300 360 agcttttctt aataaaatgg gaacacattg ctaggtacac agaaacatga ttttgcccta 420 aagaacagct gaactgttga gagaagcaag ggcttcctag cggccttcca gtgtagcaga 480 taatattacc ctgtgtaaca gagtattaca gagtttgcat tttccaagtc tgtaagtcta 487 nnnnnn

<210> 6123

<211> 559

<212> DNA

<213> Homo sapiens

<400> 6123

ggaatatttg tattatactt atcagttcag cttccctaat gcaaaattcc aaaatctgaa 60 ctgctccaat gagtagttct ttgagtgtca cttcagtact caagaagttt caggttaggc 120 180 cgggcgcgt ggctcacgcc tgtaatccca gcactttggg aggccgaggc aggagaatgg 240 cgtgaacccg ggaggcggag cttgcagtga gccgagatcc cgccactgca ctccagcctg ggcgacagag cgagactccg tctcaaaaaa aaaaaagaag tttcaggttt tggaacattt 300 360 cagatttcgg atttttggat taggaatact caacctatat ctccagttgg ttatcatctg tgttttctct tttcttccag tctgataaaa atcaaagtat taatctttag agcaccatgc 420 gagatatagg gaaaactata tagaaaatac cgtgacatat atttttagat ctgcattaag 480 acaaagctat tatcggggaa tggtgctaaa ctttanatcc ttccattaaa gaaaagaatt .540 559 nagatgnett attggaatn

<210> 6124

<211> 560

<212> DNA

<213> Homo sapiens

<400> 6124

60 aagtaggetg ceaacttatt ettataacte eteteeatea taatttetge aaggeeattg ccttattttt ccctcagcat ggctgcttta cacagtgtgg ccagcagatg ggagcacaag 120 aaagtcaatc tagatggaaa acaagttata gggataattg gcaaagcctc cctttctatc 180 cctctctaag accccttttt gcaaggacta gaatgtgaag tacgtaagtg taaagaagtg 240 ttcatgaatg tgttttaatt cattcaaaga ggtattttta aagaaagatt tcaaatacaa 300 360 gcaaaagagg agaattgtta gatgaacata actgtcccca gaccaacaat tatcaattcg tagccaatte tgttttattt etgteectag gaatttgate ettteaatta tttattetet 420 480 caccataaat acttgtcaga ggaagaatcc acttcatagt ttgcatcaga aaaggtatat

| gggacgttta | ttctttagct | tttagatata | ctgggtttct | aataaatttt | acnggaaccc | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| tnttccctaa | aagaattcna | | | | | 560 |
| | | • | | | | |
| <210> 6125 | | | | | | |
| <211> 562 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | • | | | | | |
| <400> 6125 | | | | | • | |
| gactactaga | caaactttct | gactagaatg | cctatgtcca | cttttttgtt | tgtttatttt | 60 |
| tgagacggag | tctcactctg | tcacccaggc | tggagttcag | nggcacgatc | ttagctcact | 120 |
| gcaacctctg | cctcccgagt | tcacgccatt | ctcctacctc | agcctcccaa | gcagctagga | 180 |
| ctataggcgc | ccgccaccaa | gcccagctaa | ctttttgtat | ttttagtaga | gatggggttt | 240 |
| cactgngtta | gccgaatggt | ctctatctcc | ttacctcgng | atccccccg | cctcagtctc | 300 |
| ccaaagtgct | aggagtacag | gcgtgagcca | ccgcacctgg | cctgcctatg | tccacttttg | 360 |
| gcatgcactt | ctgccacctt | gcacattgta | gactaacaga | gtttcaccat | tcctgtctcg | 420 |
| ttgcccaacc | actcaccttc | ctcaagaccc | caccttcaat | tcctgcttaa | aatatgtaac | 480 |
| atggattctc | cttgcttttt | aagataaaga | cccaaatcct | tatactgact | gnaagccctt | 540 |
| tgggggtacc | tatgnctanc | ta | | | • | 562 |
| | • | | | | | |
| <210> 6126 | | | | | | |
| <211> 566 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| - | | | | | • | |
| <400> 6126 | | | | | | |
| ctacacatac | tccttatatt | tcattattct | aagttataca | caatgttcaa | caggagtttg | 60 |
| aagtttattt | agtaataaac | ataagtcatg | gctgacaact | gagaaaatcc | tattcacata | 120 |
| aaccatcata | gattaaaaat | acatagtatt | tetactitaa | tgcaataggg | tcccaggatt | 180 |

caaacaagga aatttgattc cagagttggc attatgtagt tatgtactct gctacaaaga 240 actagtggag gtaaacttcg gcagtaaaat tctcaacagt caaatattaa tgcatttcat 300 atacatggct ttgcatccgt agaggaagat cagttccttc agcacacgtg ccaatttctg 360 agtcttccac tagagaatcc tcaacagttt cttcttcaga atcaaattcc tgattatcca 420 gtgattcaaa attatccaga ggttcaccat tcagctctct attagctctg ccatatctgg 480 acatggtctg ntacttntgg cagtctttaa tccccttttc aggnggcaat tcaatggcct 540 ttggncaatt ctttttgaag ttctcn

<210> 6127

⟨211⟩ 574

<212> DNA

<213> Homo sapiens

<400> 6127

ccaaggcgat acagattaca gttgctgacc tttttgcttc tcatatatga aaggcggccc 60 tcatgcgcat cagggtaagt gcaaaataga tatgtggtga tggcatgctt taaaaaggag 120 tegecaagea ttteaageeg etecaggita aateegteae tagegittga cagagicaaa 180 gcctgaagaa taagtccagg attggggcca agagtccttg aggagtaccc aatagaaggg 240 ctctgctcag aatccatcct gcccttgagc acttgaatag tgtctgtcgt accaggcatt 300 acggccatca caggacttcc atctgaggta gatttgttag catttccatc aaggtattta 360 ttactcagga gagtacattc atcgctgggc tggggctggt tctcgtaact gataaattct 420 gaatggaata tgaggnaatt ggttgcacgg gtatttcctg cttgtagtaa tttaactgat 480 ttccttggca aaagctctgg tagctaaatc ataactggca tttggcgaaa atttgantgg 540 aanaaaaanc cttaattggt gggaaaaacg ntgg 574

<210> 6128

<211> 572

<212> DNA

<213> Homo sapiens

<400> 6128

60 aatgagacag ggtcttactg tgtcactcag gttggagtgc agtggcgcag tcttggctca ctgctgcctg gacctcctgt ccaggattgc ctcaagcaat cctccaacct cagcctccca 120 180 aatagctagg actacaggcg cacgccacca tacccagcta attttgttta tttttttgta gagatgagtt ctcactatgt tggccaggtt ggtctcaaac tcctgggctc cagtgatcct 240 300 cccacctcgg cctgccaaag tgctgggatt gcaggaatga gccactgtac ctggcccaga 360 gcatccttaa tgtggcaagc acttctaggt aagtgttaag tatagaaaca taaagaagac 420 caaaccctag catcagtgat cttccagttc aggagaaagc ggtaattaaa catacctgtg ccagacaagt gcaatgtaaa tgtgttcagc acaatcaggg gtatgcacaa tgggctttag 480 ggaaacagag tanaggcatc aaagtcattc ttataggcat gtcaggaaag acttggaagc 540 572 atttccngaa ntttgggctc'aaaanatgng ag

<210> 6129

<211> 549

<212> DNA

<213> Homo sapiens

<400> 6129

60 cgtaacaaag aaattttaat gcataaggca cagtgagagg ctggaatcat taagcatcct caaacacaaa gggcccagca ggctgagcaa aagaacagag acactctccc tcactaccac 120 180 tgggcgccct ggacagtccc ctgaggagta gggggcatcc agtctttggc acggtgcctg 240 ggggcaggaa gtgactagca tgatcccagc tacccctctg tgggaatact gccaccaaga 300 ggcagctctt tggtctggat aaagtcagtg caaatgtcca ggggtcaagc tctggaggaa 360 tgagggtggc acagtgccct agggctgggc agtctctgaa cagtctcctc agccctcatg 420 ggcaacatgt gggcttcttc ttgctggcag ttaggtagag gttgctgtca tcactgttga 480 tgcggacaac atccccaatg cgtcgagccc ccgatttctc cagctcacca gcacattggc 540 ctcaaaggca atgcttgcac acngaanaaa aattctnggc attnttaccc cgnggagatn 549 aaaatgnca

<210> 6130 <211> 534 <212> DNA <213> Homo sapiens

<400> 6130

agagtacgtt ctgcatttta tttctgcagg caacactttt gctcaccagc aagaacacag 60 120 cccgaggaag ggacccaata acctttcaaa acgcaaactg ctgcctgcgg tgagggccca gggtcctcca cggagaggac aggcatcttc ctttcccacc aggaaggagt gagcccggag 180 240 cctctgctat gcgcaaggcg gtgtgcaggc accggctgca gctttttgct ctcttctttc 300 tctttggggc tgggctgggt gtgcgttctg gtgctgatgc tttggcctgt gaggctgagg teggeatete gaccegttea attacageaa egaagaagee accgetaage gtggtettgg 360 gggaagcccg gaggcagtgc tcggcacccg ggaacgtgct caggcctcgg tggggcccgg 420 gcaggcaggg cgggagctag cctgaagcgt ccgggttctg ctgcaacgca tcttgnacca 480 tgtcttcatt ctcctnctgg canaaggagc acatggagta naccaaccnn ttna 534

<210> 6131

<211> 578

<212> DNA

<213> Homo sapiens

<400> 6131

gtacatcata ttttctatag aagtgattat atcacaaaga aaaatcctgc caaacaacta 60 caaatcaaga atctgtgggc aaaaagctca attcatacaa tgtaaacaca ttgaaaaaac 120 aaatgcaaaa taaaaaaagc tgttgataca tcacctcgaa aaattaacac aactaaatta 180 agggctatag aaaatatgtt cagcttatat catacacgtc atttaacttg aattttacaa 240 tttttaaact aatagaattc agatttatta cttgaaataa tggtataccc agctgttctt 300 cataatggca agcatattcc atatacaata caatttattt agcatagttt tatactctta 360

agtaaaatat gttagtgatt aaaagcataa aggaataaat atgccaagcg caaaatataa 420 taatggaata gacttatgta ggtattaaaa tactgcataa tgacaaatac tgaattaata 480 caactttcct attattcata atcataatat atgaagagaa aactgntcct atgccngggt 540 tttttttct ggaaaaaaac tttngggtta tacccntt 578

<210> 6132

<211> 578

<212> DNA

<213> Homo sapiens

<400> 6132

accaatttgc aaaatttaat tttatacaca tacacaaata aaacaatttt taacaaattt 60 aaaattcatg gtccaccaaa ttatttttca ttatttaact caataggaac tttcagatca 120 acacgtacat attgtaaaaa atagttgact ccacattatg caatatacta tagcaaagga 180 atattaaaat agtagataag aaagggcact ggagttttgt aaaacaggaa aaaagaagtc 240 ctgtatttta tacattgaat atttatccac aatagcataa tttgtctgaa aataaagtaa 300 tgatctacaa ttatataaca aggagtatct tgggatattt caataattca aacatttatt 360 ttttagaaaa gtggtatagc aaatgagaat tatgcaacta aatcaccatt ctaagaataa 420 aatgtcaaaa ataatcctac atgacatact tggaaatgtt catatccaac aaggcaaacc 480 aggtnaaaan ggaaactaat tcccaatagg aagcaatatt taccanggtt tgccctttgg 540 ccttatctaa atatggggcn cctannggca gatacctg 578

<210> 6133

<211> 576

<212> DNA

<213> Homo sapiens

<400> 6133

aggaaaaaaa agagaaacct ttatttacaa ccatgggagt cccacaggag tacacaaaac 60

acacaatgtg cacacacaca aaatgaacct tttaagtcaa taccatgcgt gctcctggcc 120 gegegeeace ceteagtgee etateegeae caccateaca gtgaegttgt eggetgagee 180 ccgctgcacc gccttgttgg ccagcctgtt gcaggctgct tcgtagcggg cgtcggctgc 240 ggacttccct tcccgggtct ggatcttttc atcctcgaga caggacaaga tgaagttcac 300 ggcttcttct ggggtaaaga ccttgaagag cccatcacag gccaacaaaa tgaacctgtc 360 attgggggtc agctggcagc gtctgatgtc gggcacagag gtgacaccgc agcgcttgta 420 ctgcccgtcc ccaatggagc gtgacacctc tagcacgccc aaaacacgcc catccctgac 480 gtttccttca gcttctgnat cctcatncgn tcttcatact gagttngaat atgctctttg 540 576 ctgangctta angnttgatg gtttgacttt ctaata

<210> 6134

⟨211⟩ 572

<212> DNA

<213> Homo sapiens

<400> 6134

gagatagagt ctcgctctgt tgcccaggct ggagtgcagt ggcacgatct cggctcactg 60 caacctctgt ctcctgggtt caagcgattc ttctgcctca gcctcctgag tagctgggac 120 tacaggcccg tgccaccacg cctggctaat ttttgtattt gtagtggaga tggggtttca 180 ccatattggc caggctggtc tagaactcct gacctcgtga tccgcctgcc tcagcctccc 240 aaagtgctgg gataacaggc gtgagccacc acacctggcc tctcctctt gtttctaagc 300 360 tgatctttaa gcccagtcgt ggaaccagat catctaccaa ggaaggcagg cagtctgggg 420 aggcagagac aagggaagca agctggtggt gtggggaggc gagcaccagc agacagtaga agggccccaa cacatgcagg angtggcctt cagggcagga atgcctataa ggatanaggg 480 tggtgaatga aaatccctgg ttaaacttac cttctcancg gcaggaaggt naanggcttg 540 gcttaantcg nccacttgcc aagcttaaca gg 572

<210> 6135

<211> 578

<212> DNA

<213> Homo sapiens

<400> 6135

agatgttatg gcagatttaa cccaaactca tgggattctg agccccctgg gaaaggcatt 60 agatettata ggteagaetg ttaccatgga gaacgteegt getgaaggat taatagatag 120 180 ccgggtatcc tggaaaagtt tgtgtgcttc atacacagat aacattagca tactcataaa aaaggetetg gecaaatggg atcatttggg ttttgaaact ctagatattt gggatateca 240 300 gtggaataat acatggggat gaggtggggg atgggaattc aaatgacagg cccttgtgcc agagagacac tcagaaagtc aagcaagcaa gaactgagat gtgtctcgag catattttgc 360 420 attatttggt tccagaatag caacaagagc tgggtgtagc tactgtttct caggctgggt 480 tttacgtgct tttggtagct tcataagccc caaatccttt tctgggntca attctataac atgggncgtc ttctaaactc ctcggtacta ctggnaagtt gggncacggg caacatggac 540 ctatggaatc anaatctgca tttaataaga ctggcngg 578

<210> 6136

<211> 566

<212> DNA

<213> Homo sapiens

<400> 6136

60 gagatagagc cttgctctgt ctcccaggct ggagtgcagt ggtgcaatct cagctcactg 120 caacctctgc ctcccaagtt caagcgattc ttctgactca gcttcctgag tagctgggat 180 tacaggcacc cgccaccacg tccagctaat ttttacattt ttagtacagg gtttcaccac 240 cttggccagg ctggtctcaa actcctgacc tcaggtgaac cgcccacctt ggactcccaa 300 agtgctggga ttacaggcgt gagccactgc acgcagccta cggatgcctt ttaaaggaaa ttcttataga ccccctaaga aaatgtctct gattccaacg aatcctggga ctggacaatt 360 420 agataaacac tgtcttaaga attagtacta cgccttaaaa aaaaaaaaag gcttttcaat tgngaaacat cacagcaaaa taagttcatt tttacaacta gtaaaatatt agactatcat 480

| aattatcaaa | gtttatgatt | catagnaaaa | tgggttagac | tcagaatgng | aaattaggnt | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| taaaaaaaac | tgggtggttn | tactaa | | | | 566 |
| | | | | | | |
| <210> 6137 | | | | | | |
| <211> 583 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6137 | • | | | | | |
| gataattaca | tatttaatac | gtgttgcttt | taacagcaat | ttttaaagta | aacacatcat | 60 |
| agaccttata | acttattaaa | ggttttatag | tgcttacaaa | gttgattcta | aaaaatatac | 120 |
| cttatttgtt | ctaaatgaat | aacattatct | ggaagatata | ataataaatt | atagtagtat | 180 |
| gttttccacc | acgatagtta | agattgtgta | cacatattca | atatgaaatc | ctcttaggat | 240 |
| tttcacacct | tcagcctgaa | aacataaaag | cagattaaag | tttggcatac | aagatctcag | 300 |
| tctgatagta | attgctttaa | aactcaaagt | gtaaaaatat | ctacttgaca | ttctaggaaa | 360 |
| gcatggccac | atgcacagac | acattctctc | actcactcca | acacacacgt | gtgcacacat | 420 |
| actcacaccc | cagagtactc | agaagatctt | gcccttgngg | atcagacaac | tggcaccaat | 480 |
| ttcaaaaact | aatggaaaaa | attagctaag | aatatggtta | aaccatactt | aanaaggtgc | 540 |
| tggntgncat | taaganctta | acatgcnnaa | naagccctct | caa | | 583 |
| • | | | | • | | |
| <210> 6138 | | | | | | |
| <211> 514 | | · | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | • |
| <400> 6138 | .* | | | | | |
| gactgttcat | ggccatcttt | attcccagng | ctggctatcc | caagatactg | ccaggccaca | 60 |
| gccaaccccc | acctntgcca | atgtgactgg | gtcaccaccc | catacaccag | agcagccttg | 120 |
| agccctgccc | cacccctgc | cctgcggaag | ccaagtcccc | agctataana | ccctgcccct | 180 |

cctggnggcc caggaccctc aaagatgcac acaggggccc cagcgagggg cccctccgtc 240
attagccttc tcctccaggc tgggctgcca agcagcctgg agctgagtct gtcccttgga 300
cgctgggcca cgtcaccttc tcctccagaa ggcttcacct atgggcccag gaagtcctcc 360
ttccgatagc ccttcgcccg aaagtcacgg tggagcttgt tgnactgcca caggttggcc 420
aggaggctgg atgcttgccc gggaggactt ntcactggcn gggcttgccc gcttnttntt 480
gatgaaaatg acttttggag nccgnnaaaa tacc 514

<210> 6139

<211> 572

<212> DNA

<213> Homo sapiens

<400> 6139

aaaattgtca agatatttat tgtgttaaca tgtgagacat acaatttgct cagtaaaaat 60 agcacatgaa aaaatattat aagcttatat tcataaagaa atgggtatgt tattacctct 120 ttttcttgct tgctcaggac tattaatttg acaaggttgg aatgtgcaca gcacagctga 180 gacaccacca ttttaacact gaatcactat accatgaact gacagaaccc tgcatgaagg 240 atgaaaaact catacccaaa gtcaagaatc acacagcagc atggaggggg aaaatgaact 300 atatgatgct aaccgcattt aatttcgaag tggggggaaa cagggcatgg ggagtgaata 360 420 atggttgaag ttccaggctc taactgtcat ccttaagtaa attaagttta actcatctat taaaaagtga gttaaaacag atgagtttta aggtccatct caactctaaa tgagatccta 480 gcaaaaccan ggaatccncc ctttagatcc ttatgaaacc caggaaaagg tggggcccag 540 572 tgcttacctg aggcacagtt ggaaccaccc tn

<210> 6140

<211> 573

<212> DNA

<213> Homo sapiens

<400> 6140

attgtggtaa aatatacata ccataaaatt tacaatttta accatttaaa aatgtacaat 60 tcaacgtcat taagtatatt cccaatagtg tgtgcaacca tcaccaccat ccatctccag 120 aactctgtca tcatcccagt gtgaaagtgt tttagaaacc atatatgtaa aggcaggtca 180 attaggaatg tgctagctga agtcttgacc ggacagcaaa ttcatccatc cacctaccta 240 ctgtgtttat gtaccaggct tgataaatac agaaacaaat gagaccagaa ctacaaggta 300 360 agaaccttgt cgtctgtgat gctgggcccc ctgtcctact tcaaaacaga gtgggaagat agaaaggatt cttagatgag tctctaattg aaggaattca agttttactt attctccttt 420 cccagggaaa tgggaggtgc tctcacccat ggcctcagcc tttncagtac ccaagaagtg 480 tgggatttct ctctcttttg gatatggntt ggtctgggct cttgcatggg agacagagga 540 cnatgnatac tatcanttgg tanagccttt agn 573

<210> 6141

<211> 574

<212> DNA

<213> Homo sapiens

<400> 6141

| cttcttttgg | gccttctgta | gctcctgctg | ggccagcttt | gcagctgctg | cagccaaacc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tgtttcaata | gaggctaccc | gggtcccctc | acgcacagga | cggtcctgct | tcggcagagt | 120 |
| tggggtcacg | cgggctttag | gactccatgg | agcatcatct | gaattcttct | ttttcttggg | 180 |
| tcgagatttc | aaagcagggt | catcatcatc | agactccagt | gaaggataga | tatactctgc | 240 |
| atccttgaag | cacgctccca | agctgtcctg | ttcatccaga | ctggcgttct | cctcctcctc | 300 |
| ctcgctctcg | gttctccagt | atgctggccg | cttgatgggc | cgcttccctg | gggtgcgctg | 360 |
| ggaagcagga | ctgttagaca | ctgtgcccag | cccactgctg | gagctcccac | tgcttcgatc | 420 |
| ctgtccccca | gtccaccagg | cctgcaggct | agaggtagcc | cggtgaggac | gatgaaggac | 480 |
| tgcaggttgg | catgcacaag | catgcctgga | tggcctcctg | agtgcttggg | anaacttggg | 540 |
| ncctngtgaa | ggcannataa | ncagggcccc | cccc | | | 574 |

<210> 6142
<211> 569
<212> DNA
<213> Homo sapiens
<400> 6142
aagactctgt tatgatttta tttcttcaat tgttccaatc a

aagactetgt tatgatttta tttetteaat tgtteeaate acagttteta atacagaaat aaaactatte agegteteeg ttettgette attttgttte acagagatet geatttetga

a 120

gtttccagge tccaatagea gttctgttaa gaacagacag ccagtateat cctgageact 18

180

60

gaggtatgct ttccatggcc gagacccagc cctactcatt gcgatggtct ggatgttcac 240

0 240

tacttgaaga gccatctgga gggtgtcagg atggaattct ccccgccaag gcaacacttg 300

cg 360

ccgatgagca actttaaggc taagccaagt tttctcaaaa taatcagcag taagctggcg

420

attggggact agcatgaggg ctccagaatc agggagttct tgtaccctct ccttgttctc

480

ttcaggaatc aagggtccta aaagagacag aaaacttgtg tgaaagatgt tcttaatctg

a 540

taggactaag ntttttatnc aaattccaaa tgtcccaatg nggcctttat ttttggacaa

569

<210> 6143

<211> 570

<212> DNA

<213> Homo sapiens

angnttgaaa taaccgggnc caaactttt

<400> 6143

caaagtagac ctctgtcttg gattactatg tacctggaca ggtgaactct tgtatgtttc 60
tgttttgggg atttttaggg gttttccatg tacattcata gagcctggtc agcagcgagg 120
agtccttgtt gcgtatggac ggaaggctcc ctggcaccca gatgtctccc ttcgtcctgg 180
ctgacacaga gcatggtggt catctgctct tcatgtccag caggctcaga aagaactcgg 240
agttccctc gcacccttgg gccaagcttt tcaagtccga gtgccaggac tggatgagct 300
ggggtttgtg tgtctgctgg cggcacagtg ggtgtgcaca agaccaccat ttgggtatct 360

| aacaaacaca | ggctcacaaa | agggattttg | gcatatctga | caaagctttt | tgtctgaaaa | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| gttggattga | gcttcctttc | aacttcatct | tatcgtaggt | gtagaattaa | gtttcggacc | 480 |
| tggccaggcc | ganaagccac | tggatggtcc | tccggcatgg | atctgnccct | nagggcccca | 540 |
| tcaggaatgg | gcaaagaact | gccttaccag | | | • | 570 |

<210> 6144

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6144

| gagacggtct cactccgto | ca cccaagctgg | agttgcagtg | gcgtgatctc | cactcactgt | 60 |
|----------------------|---------------|------------|------------|------------|-----|
| agcctctgcc tcagttcag | ng cgattctcct | gcctcagcct | gagtagctgg | gactacagtg | 120 |
| gtgcgcctgg ctaatttt | tg tatttttagt | aaagacaggg | tctcaccgtg | ttggccaggc | 180 |
| tggtctcgaa ctcctggco | ct caagtgatcc | acccaccttg | ctcagcctcc | caaagtgctg | 240 |
| ggattacagg cctgagcca | c cgtgcccggc | catgttgctt | ttataattga | gatatttcat | 300 |
| ttgttttggg ggttaggca | aa atttaatttg | ccattcctca | aactcagtaa | cttcaaatat | 360 |
| aaacaatgcc tagaatgaa | it atggttcctc | attatttcta | tcaaactact | acaaatactg | 420 |
| aagaatccca aagtagtti | t ccacagaggc | agaaaagcag | ttcaaggggt | tgaaaatctt | 480 |
| caatattaat aagccctgg | gg acatttnaat | gggactttat | atttcaaggg | aatgcaattt | 540 |
| gaatcataat cantatata | it tggccccaaa | agtaccttaa | ttc | | 583 |

<210> 6145

⟨211⟩ 583

<212> DNA

<213> Homo sapiens

<400> 6145

gctgcgacag tctctttatt tccatctcag tctccctgc ctgctcattc ctggggctcc 60

aggececaag etcageagea gagagtttat aaataaataa attacaaaag egggeaggga 120 gtggcctggc cagccctccc ggggctatgg ctcagtgctc agtgagtgac agctgcagga 180 teegetgtaa gteeteetee teetgetgee egegeegete eegeteetee tgeteeegtg 240 aagacaactc cagggccagg cgcagctgct cttcaaagct gggtggaccg ggggctgggg 300 gtgtcctggg aggggatcct gggcccctgg gctctgtgga cagctgcagg ctttcctgga 360 gggcccgctc cagctgaagc tgttcctcat aaaccgtggc ctggggagga gggcgggcac 420 480 cgggcccggg tgttggtcaa gggcttccca gacggtcacc tgctccgnct natgcccgct 540 tcaagcangc tctgctggat ggcgaactgc aggaaggcat ngncctcgtc ccgaagggct tcgttgngct tcatgccaac acgctttacc cgtngggact tta 583

<210> 6146

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6146

ctttgagaca tgctgtcagt cagttgccca ggctgaagtg cagtggcgag atcatgcgtc 60 actgcagact tgacctcccg ggctccagag atcggcctcc caagtagctg agacaacagg 120 tgtgtgccac gacatccggc taatttctta atttttctgt agggatggga tcttactatg 180 ttgcctaggc tgttcttgaa ctcctgggct caagcagatg atcctcttac cttgacctcc 240 cgaagtgctg ggacttacag gtttgttcca ccatgccagc ccacaggctg ttttttagga 300 ctagaagaca cttctctcc ctgtatcctt cccttcttct acatgtgcaa cctcattcct 360 420 gcgctacagc tctctcttta ccaggtggat ggcacctata cacctacagc ctgggcatca gcatcactgc tggcgtctcc ccctacccaa cgccagccct tacttacctt ctattctctc 480 atctacttcg atgnggctcc tcatttgggc cccaccatca ttcccttcct gnttggaagc 540 ctaattcact aatcctcatg nnaacctggg cagcacttg 579

<210> 6147

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6147

gagacagagt cttgctctgt cacccaggct ggagtgcagt ctggatcgca gccaagagcg 60 cgatcttggc tcactgcaac ctctgcctcc caggctcaag caattctcct gactcagcct 120 cccgagcage tgggactaca ggcgcacace accaegeeeg getaattett gtatttttag 180 tagagatggg gttccatcat attggtcagg ctggtcctga actcctgacc ttgtgatcca 240 cccgccttgg cctcccaaag cgctgggatt acaggcgtga gccactgcac ctggctggaa 300 tatattttaa aataatatge atgagaaaat aaccagttte etggaettea gaagaggaag 360 aaaagttgcc ctccctctca tttctttttg ctttgacaat taaaacatca gacactactg 420 ttcaaaagca ccccaaagac cagtgcataa aaacaggtag cccctaattc atctgcataa 480 gacataactg nttatcaaac cgattataat caagcatttn cnaacagctg gcttatttct 540 581 caaaaagcat ttggcttaaa antagaatgg gatatnccaa t

<210> 6148

<211> 573

<212> DNA

<213> Homo sapiens

<400> 6148

agtagagacg gggtttcacc atagccagga tggtcttgat ctcctgacct cgtgatccgc 60 ctgcctcggc ctcccaaagt gctgggatta caggcgtgag ccaccgcgcc cggccctcct 120 gctgtgaatt ttctgaacca tgtatgtgaa ttaatttgca caggttttcc cccattactt 180 agatgtacag gatttctttc ctgtgtgact tctcacatga ccttgaaagg ctttgggaca 240 actgaaagct ttcccacatt tttcgcattt actgggcttc tgtccaatct gcgttcttac 300 atttttggaa gagcaaagcc cgcctgaagg ttttcccaca ctggctgcat ttacaggttt 360 420 ctccccagtg tgctttctct catgtttgtg taaagatgag gaccaaccat acgttttccc acacgtttca catttataga ctttctctct aagtttgnga tttgacatct gtggaagggc 480

| • | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| caagnettge | ggaagacttt | tccaacgctg | gcccanttac | anggttcttt | tancatgcgt | 540 |
| ctcccgggtt | gggtaaggat | aaggnccacc | naa | | | 573 |
| | | | • | | • | |
| <210> 6149 | | | | | | |
| <211> 578 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | • | : | | |
| | | | | | | |
| <400> 6149 | | | | | | |
| gagatggagt | cttgctctgt | tgcccaggct | ggaatgcagt | ggcctgatct | cagctcactg | 60 |
| caacctccgc | ctcccggatt | cacgccattc | tcctgcctca | gcctccctag | tagctgggac | 120 |
| tacaggcgcc | cagctaattt | tttgtatttt | tagtagagac | ggggtttcac | cgtgttagcc | 180 |
| aggatggtct | cgatcttctg | acctcgtgat | ccacccgcct | cagcctccca | aagtgctggg | 240 |
| ggtgacaata | agaaatgcta | ctctttaaat | tgccttcctt | atttcagaga | ccaagtgaca | 300 |
| gtgtttaaca | ccagagacac | agtgggcaca | gttactttca | tgggcagcag | ggccacagtg | 360 |
| gtaaaatgaa | tgtttttgac | ttgtgagggt | ctttggtagt | atctctagga | ataaaatagc | 420 |
| ctactaaaat | atatgttgat | ctacataatt | agaaattatc | angnaagtag | aattctaatt | 480 |
| tggatcacca | taatagncat | gggcctttcc | ccaggttttg | gaacctgaca | attttgcaaa | 540 |
| cctggagncc | atgacattgg | tgggaatata | tactaaaa | . • | | 578 |
| | | | · · | | | |
| <210> 6150 | | | | · | | |
| <211> 576 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | • | | | | |
| <400> 6150 | | | | | | |
| ctaatatcct | tatttagcaa | aattaaaagt | tggcgatgat | gtgttgcttt | cccagacttt | 60 |
| tatttgaaat | gtgactgctt | tgtaaaactc | cagagtcaag | gactcatagg | caggaggatg | 120 |
| tcataaatta | acaggaaagg | atgagaaatc | tccactccac | tccctcctcc | ctcccttgat | 180 |

cactcattce eteetteea tteattaace acceaecae tgeeatgee taaggaagea 240 getatetaag aagteeetge etgeaggge tttacagaee aggaggaagg caacecatag 300 agceaggate etgataacea etgetgaetg eeeettee taggeaecaa etaaggtgge 360 teeaaaaagt gaggeettgt tgggaaggga aaaaacagca aaggteaage ttggatgaae 420 eeateeagaa ttttgeaate agaaataeet agaaaagaat tattttagaa gaacaggggg 480 atgeeagge ttggggatga ggaatgatgt tteagtgett aaggneeetg aaggettggg 540 etteetgete aaaacecagg gggneeaggt tgeett 576

<210> 6151

<211> 578

<212> DNA

<213> Homo sapiens

<400> 6151

cagagcaaaa caaagtattt tattccacta gcagatgttt ctccaaaaaac aaaaaacaaa 60 ccaatacaac cacaaatact acccacacac aaccctgaaa cataagttgc catattccag 120 tggtcctgaa ttttaacatg ttttgctcta cattaattca agaaataaaa tgagaaacag 180 ctttgaaaat gagattaact cctttgctgt aattatactt actctataat tcaaactatt 240 tagctgaagt cagttaacga gtaaaaaccg cggatacagc tcaaactgct cttaacttct 300 ttaaatgttt actgttctat caaaactcag acccaagctg cacaggtgta acttgaggca 360 ctaacaatct teetaecaga egtaatagtt ttatgtgtte ttaaagetgg gegeatatae 420 aaaatcactg tcatcacaca taaacatcag aaacttttct tggacaacta gaccaatagt 480 ttcctctatt ataattattt ttaaatcaag catgtgtaac agttcagcat ttaaaaggac 540 tcccaggnta tgattaaaag gatgctcagg ttgagaaa 578

<210> 6152

<211> 580

<212> DNA

<213> Homo sapiens

<400> 6152

ggaggcctct tctgcagaag ataatctgga ttttttatgt gatgactctc cacagtcttt 60 tttggtttta tcttttcctt tttttgactt gatttctttt ctcctgtgat ggaaatttaa 120 tttaatggaa cattcttggc ataaccttaa tttaacgagt gcatttctct tctcaccatg 180 ctcaatataa ccaaaattaa cttcccaact ctttaagcct tctttttat cacaatattt 240 300 atttccacag aaaaattgac cttttcctga aattacttct ttttctactc gccacctaaa 360 tccaaactga taataaaaaa attacattta tgccaatgta aatttaaatt atacagaaat ctaaacatgg agccaacaat gacattcacc aacctaaaaa ataaatgtaa ttcccatcat 420 gacagatttt tetettetta taggatttga agaaaataca ttgaacaate accaatttat 480 ctggtaaaga acaatctact ttaagatagc ttaaaagtta tangtgccan gccacaagat 540 cctaagttac caataatata tccggtctgg aagacgccaa 580

<210> 6153

<211> 580

<212> DNA

<213> Homo sapiens

<400> 6153

gtagagatgg agttgcccag gctggtcttg aactcctggc ctgaggtgat cctcctgcgt 60 tgacctccca agtatcttag actacagatg cactccacca cgcttggcta acttaaattt 120 atttttttgt agagacaggg atttgctttg ttgcccgggc tggtctgaaa cccctggcct 180 caagtgatee teetgeeteg geeteecaga atgecageat tacaggegeg agceaceata 240 cccagcctta ttcttgagta atttttcttg tcaattttat ttttctgttg tgagagtgat 300 catggaaaca gtgggtgaga acactggtct gtctagtcca ttcttgtctt gctgttgaaa 360 ttccagatgc agccagttga ggccccagct tgcctcactt catcacagcc ctttttcttc 420 ctttgcacat gtatggtgtg ctcagtaagt caagtgccaa tccacctgga gttgccgggg 480 gttttttttt ctttctttct ttctttnttt tttttgaaac ggantttgct cttggtgncc 540 580 aacctgaang ccangggacn attnggttac tggaacctcc

| <210> | 6154 | |
|-------|--------------|---------|
| <211> | 574 , | |
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 6154

| ctgggccaca ctgagtg | gaat tttaatgcag | gatggaagca | cacagatggg | tgatcaggtc | 60 |
|--------------------|-----------------|------------|------------|------------|-----|
| tctctttact gaaacac | caga acatgtgcca | aggtgagtcc | aaggacacct | ctgggaacag | 120 |
| gtgaagcccc tccccat | taca tacactccgg | tggatgtgag | cgagggtcct | gttgccacat | 180 |
| ctggggttag gggcttg | ggac atgctgccct | tcatgggaac | cttctgggta | cctctcagca | 240 |
| cagtaacgca gctgcag | tct gtcggtgggg | gcccaggcta | ggggcagcac | cctcttttgg | 300 |
| catacgggac atgcctg | gct gcagctgatg | tccgttagcc | tctcctgaca | cgcagtaagg | 360 |
| agacctggaa gtgaggo | egcg tgggcgtgga | gttcccggtg | gagctgctgc | atcagccttt | 420 |
| ctgccactct ggggtca | intg agggtcttcc | ggggaagcca | cactcacccg | caggaggagg | 480 |
| aaacctncat tttacct | gca ctcacgtctg | nggccggcct | tgtnccggca | gtctgggcnt | 540 |
| ggctgntggg ggcttna | tcg gggcttnctt | aggt | • | | 574 |

<210> 6155

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6155

| gcccagctgg | cacatttatt | ggcattaaaa | cacaagaccc | ttcccatcac | caggaagcca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| cgcccaaagg | gtgtccctct | gccccatttc | tgcaaaaact | ctcaggcctt | agcagtagcc | 120 |
| tgagctgccc | ccagggctgt | gagctgctga | atcttctgac | tcatcatttc | catgacggcc | 180 |
| tgtttcatgg | cgtgcttctc | ctgaagagct | ggttggattt | tctccatctg | cttggttaga | 240 |
| aaatctatct | tcctcttgaa | gaagtccttg | gcatcctcag | ctgtcttctc | tacatagtac | 300 |

| ccagttccca | catcgatgag | cacgtgttcc | acatcatgca | gcttccaggg | gcatacatct | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| gagaagcaag | aattaaggga | aaaactagcc | agcccagcat | gagccatgat | tccgccagcc | 420 |
| agcctgcttg | gcctncaaag | acctttttt | ncaaaaggct | ncangcataa | ggctgaataa | 480 |
| tctgganggc | ttagacaatn | ctataactnc | aatggaagga | agacggaaag | ttggtcttaa | 540 |
| ggngaaaatg | atgatgctgg | acaccttttg | gnctgcctaa | tçc | | 583 |

<210> 6156

<211> 508

<212> DNA

<213> Homo sapiens

<400> 6156

| ganactgatt c | tcactntgt | cgcccaaact | ggactgcagn | ggcacaatct | cggctcactg | 60 |
|---------------|-----------|------------|------------|------------|------------|-----|
| caacctccgc c | tcccgggtt | tgagcaagca | attntnttgt | ctnancctnt | ggagcagctg | 120 |
| ggactacagg co | cacggcaac | actcccagct | aatttttgt | atttttagta | nanatgggat | 180 |
| ttcaccatgt ta | ggccaggct | ggtcttaaaa | ctcctgacct | caggngaacc | acctgcctcg | 240 |
| gcctcccaag ng | gctgggatt | acaggcgtga | gccaccgnac | ccagccgacc | cttnttaaaa | 300 |
| acncagagaa c | tgaggtgtc | ctgatgggca | tccaaggaaa | aagcagccca | acgagttttg | 360 |
| caggcccggg g | tcancaggg | ggaccaggct | tinacccct | acacagcccc | gaatttntnc | 420 |
| agcaaatccn gg | gatctgntt | tanggacatc | agggtcttgg | gctttaaacc | tttcccgtat | 480 |
| ngttccacgt c | tggaanaac | ttgggaaa | | | | 508 |

<210> 6157

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6157

actaaaataa acctgttcgg gggaacagct actagatgaa tttaagggtt ttatgcacct 60

tatagaactt atagcaaaaa tagttctagt tgatttcatt ataaataacg ttttcaagaa 120 cctgtgcaaa actgtcaata atttcctaaa gcacaattga tcagaaaaat ccatgattgt 180 teageettea caccettett catgtaagaa cacctttetg tacateteae agttacttat 240 taggttgaaa ggtatatgga gaatggtcat tagacgtctc gacagccacc tgctgttgac 300 cacttgcctn ctcaacagga accgctgtcg tctgcatatg tgcatactgn ggcaagtagg 360 ctccttgcat aactgacgtt gcaggcatgt atggtnccgn gctggctaat gacagatgac 420 tcatctgctg ggccnaaagg cttgacattg atgcccggct tnaatgacat ggggggctcc 480 attgagggag ttaacacggg acccaggggc ttganaatat atgggtgagg ttgcttcccc 540 588 naaggetttt gacetggtag gennateeeg ganaatneat nttggggg

<210> 6158

<211> 527

<212> DNA

<213> Homo sapiens

<400> 6158

accattatag ctaattattt tattacaatg ntttcanaat tagatctagg ngacataaaa 60 tacncaaaag cataaagcca tntgaatagt acagtcaaca agcaacaacc agtacaatca 120 gcaataatag agaactttta actttgtatg tcacagagaa tgnatatacc tttttaataa 180 aaagcctgaa taaaccaata actattaaag aaatcacaaa gctgattaaa aatctactat 240 taaaagngtc atcaggatta gattggttta cactttgncc tagctaactt ttaacaaaca 300 aataattcta atgctattta aattattcca gaccacagga aaaaaattga aaactcacat 360 attcatattt ttttaaagct agcacaactt caataacaaa acttgataaa gatagcatca 420 gaaggacaaa atacaatttt actttggaat gaaaatgcat aattctaaat taaatactgg 480 gaaataaaat cenetengnn geaaateatt tttteneaan gneeagt 527

<210> 6159

<211> 592

<212> DNA

<213> Homo sapiens

<400> 6159

acaacccgta ggttttgaca ttttctattt tctctggaac cttaaaagat gttcacaatg aacatgggct attetteata tggtetaaga tateteeeat eteatgaact cacattaett 120 atgaaaacag atgatgtaag cattccaacc tctccttgac ttgccaatgt tagtcatgtg 180 240 gggtcaagtg aaattaaaaa ggccttggaa accagagagt cctgggtttg aattctgatt ctgattctgt gacttcaagg atacattttt ttcttttatt aaaggagcat catatgactc 300 360 ctagccagct ggacagtgag gataaaatga gacaaggcat gcaaaacgta cagacataga aggcacgcaa taggttttac aacctctccc ttgccttgat tgntcttagt tttattttct 420 atttaaatca atcaactagt ttaggaataa acatgacatc ttttgaacaa tttgcatgca 480 gaacttggna tataaaaaat gggaaattag gacttaggga tttactggta aatactcctg 540 gtgaatatat catggattca tgcntttggg gaggcctaac ttttatccag ag-592

<210> 6160

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6160

ccttctttta ttaaagctat cattccaggc tttgatcaaa gatccaagaa tatttgttct 60 accaggctgg aatgaatgtg gtttggaagt tcagagtaca tttaaaagct gcaacaaaat 120 ataggtagcc aacaatctca gaattttgga tcagcccaga tggagatagc aatttgaaat 180 gtcttcgatc ccttacttaa atgacgaaat gtctatcagc ccagatagag caatttgaaa 240 tgttttcgat cccttactta aatgatgaaa tgtatatcat actatctgta aattggatat 300 tccattacag tgataacgta cagaattccc atgcgttatt acactttcct gagagtaaag 360 420 caattagaat aaccttaatc ctagcaacaa agtttttttt gtaggttttt ttttttggt 480 ttttttttgn cttttttgtt gcgtttaaaa catttgggct attccctgac gatctatcat 540 ggaaatttga tgctaacatt ggcactttga angcaaacta tttttaancc aatggatttg

gttaaaaacc ttatccaacc ggncttaaan cccgcttcca aaa 583 <210> 6161 <211> 591 <212> DNA <213> Homo sapiens <400> 6161 ggccctcctt acactttgga gactcttccc ttatgtgaaa ttttataaag aatgaaatct 60 gaaggaggtg ggagagggta tgtccgggcc cccatctcct tggtgttccc ttcttatgcc 120 ataatttctc cttggcctca gaggcacctt tactgcaggt gagggctctt tcaagcccag 180 240 atggageete aatggeetgg gtgaeaecea aggtetetet agaetettat gttetaeetg tctttctgaa agccccatgg agtggggagg acagccatga catagtaaga aaaggagaat 300 tccctagcac ctgactgaaa aaaataactg ggaagagaa cagtgacaat acacaataca 360 catgacctca cgtacatgga gcacggtgac catgaactgt aacattaagt atcacctcag 420 aagcattcca aacctgggtg actgancgcc ccagtagatg angaggagca ggaaggcttg 480 tgtggatgtt cacacaccgg cccaacttcc ccaagaagat aagcnctcat gggaaaatca 540 591 gagagactgn ngaactcaaa tccctgggat tcccggaatg ggcacctntt g <210> 6162 . ⟨211⟩ 579 <212> DNA <213> Homo sapiens <400> 6162 gagattgagt ctcactctgt agcccagact ggagtacagt ggtgcgatcc tggctcactg 60 agacctetge etceegagtt caageaatee teetatetea ggeteeegag tagetgggat 120 tacaactgca caccaccagg actggctaac tttttcgtat tttcagtaga gacagggttt 180

cttcatgttg gccaggctgc tcatgaactc ctgatctcaa atgatccacc cacctcgacc

tcccaaagtg ctggggttac aggcgtgagc caccatgccc agccttattt tacttttctt 300
taacctgaca attaaccact gatgttactt tttgggagct aggttatata ttttttaggt 360
tcttgattaa atggtaaata ttccagaaga cacatatgca gtatacatgc tgacttgatt 420
aattttttgt aacacctcag ggtagagatc tatttcatga tcaacacaat aaatangaga 480
caaatacctt tgnttgcaag aaacagnttn ccaagcataa tgggatacct aggttaccat 540
tcttaacttt atgcctaatt taacctaagg aaaaagtca 579

<210> 6163

⟨211⟩ 588

<212> DNA

<213> Homo sapiens

<400> 6163

gagatataag agtotogoto agtogocoag gotggagtgo agtggggcaa tottggotoa 60 ctgcaacctc tgccttccgg gttcaagcga ttcttgcgcc tcaacctccc cagtggctgg 120 gattacagge atgtgccace acacceaget aattttttt gtatttttag tagagacagg 180 gtttcaccat gttggccagg ctggtctcga actcctgact tcaggtgatc cacccacctc 240 agcctcccaa agtgctggga ttacaggcat gagccaccgc accgggccag tttcctgact 300 ttttattttc agctataaaa caattatgag agccaaagga gccaggatca ccttccaaaa 360 cattttgttt tgtacttctc taatttatga ggcattcttt cttctcaaag caggatatta 420 cagtgcagat taaaactgga tattaaagtt aatggtgaca aattattaag tagtttgaag 480 aaateettag aatateaaga ttaagagaga ettaatggen gaagaaaaaa getaetgggg 540 588 gttcaaagct taaggtttan aattctggcn tgggatctta accettnt

<210> 6164

<211> 584

<212> DNA

<213> Homo sapiens

<400> 6164

aaaactaaaa ttggttttaa taaaagtttt ggagtcatct aaatgagtaa ctatacacat 60 tcctcctctc cagcaagtat acagaaatct tcccttactc caatttgacg ctgcaaaatc 120 atacatgcac cccaaactga tctgttattg aaatttcttt ttctggtctc acccattact 180 ttaacatatc agaggaatta acataacagc ctagagaaca gaaataagag ataataggtg 240 cttcagtacc acccaaatta tctactaaga ccacagtgtg ggcaacagaa tgcagattca 300 tggtagtagt tccttgaatg aaagagttca gacagaatct tccacaaaca caaatttttg 360 cggtatccaa atcttggcag agatggaatg gaatgatatg agagccatat ggaatcctca 420 tagcgggtcc cgcgcttgcc ttcagggtgg agatgaacag gaangctcgg acccggcggc 480 tgactcctgg gaagtctgct gacagaagnt taacacnggt tggccccctt ggcccgggtt 540 ctaagcccaa gggggcnant ggccggtgnn accctcccct tnaa 584

<210> 6165

<211> 549

<212> DNA

<213> Homo sapiens

<400> 6165

acccatttct aacaattttt actgtaaaat ttttggtcaa agttctaagc ttaatcacat 60 ctcaaagaat agaggcaata tatagcccat cttactagac atacagtatt aaactggact 120 gaatatgagg acaagctcta gtggtcatta aaccccctca gaaagtctaa gattcagaat 180 gtctccatca tattagaaga aaaatgtact gtattaaaat ttaaattgca tttttacaag 240 300 ttgtttttta attagtgttc tatttacatt gcagaacttc caccaactgc agtagtttaa 360 ctttggcaca acattaagtt ccatttcttt tgggtattgg atcctgcttt ttgagtgtgt 420 atgececaaa aegtiticaa igicaicaaa gaiigggeaa aiicacagia aaicagacai 480 cttgagttga agaattgatt ctccttcaac gttttangca gattcagnca tctggattta aacagettee gtteacatgt egnggaggtt necaagggge actateattg gntettettn 540 549 atccnttcc

<210> 6166
<211> 575
<212> DNA
<213> Homo sapiens

<400> 6166

60 attgcctaat gacctatata gaaccaccag tatagtgtta aatagaaatg gcaagaacag 120 acatatttgt cttattactg atgggaggag gaaggtaccc aatctttcag cattaagtat 180 gattgttagc tgtcggtttt tcataaatgc ttgtttacca agttgaggaa tatcccttct attcctagtt tgctgagtgt ttttatcaca aacaaatgtt gaattttgtc aaatggtttt 240 300 tetteataag tigagataat eeatgegigt tittigieet tiattagiag attatatiae 360 attaatttcc atatactgaa ccaagctttc attcctgaga taaattacac tttgtcatcg tatatagtca ttttaatatg ctgctagatt cagtttgcta atattttgtc aaagattttg 420 gctatattta taacccggta ttggtctgta agtttcttgg ggtatcttgg gttttgnaat 480 actggncctg gaaaaagggg taaggaaggg tcccattgga tccaattttt gggaaaagtt 540 gtgaanactg gcntcaacct cttataatca cccgg 575

<210> 6167

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

<400> 6167

aattaaactg gggatttcaa aaaagtggcc tttattttcc aatttctata gcaaaaccag 60 ccataagtga acatggatgc tcttcaatat ttttccagta ttgaatgaaa aaagacctct 120 gccccagccc acatttcctt tgttgaatga gtagagaaga ctgagaagta tcactcaccc 180 gtgatgtggt ttgtcccttt tccagccagt gtgttggtaa taaaagtcac ctttcagagc 240 tttggtccct gtaatgcccg tctttcctgt gtccaggaat aacctttgct actaggcagt 300 cctctgaaag atttgtagaa ggttaaagtg gaaagggact tggaagctca tagaatccat 360

| gcctcttctt | ttagcatcaa | ggaattagaa | gtcctgagag | atgaagaatg | ttgtcttcca | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| actcaaacca | tttctgaagc | catttccctg | gtactgcatt | gnccacaccc | ttncccatgn | 480 |
| tatcctcatc | cggtaagctg | ntttaatgct | ggacagnctg | attggctttg | gcagcaacat | 540 |
| ttgntttaca | gattcctact | taaggaagaa | agg | | | 573 |

<210≻ 6168

<211> 584

<212> DNA

<213> Homo sapiens

<400> 6168

| aaattaaggc | tcgaaagaag | gaaaaggact | gaaactataa | atgaaaccct | tcatgtttct | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| agggctgcca | gtcagctgct | tttagtgcct | gcctcagttc | cgcccactct | gggcagggag | 120 |
| ggacctatcg | atgtgcctat | ctttctacac | aggggctgtg | aatgaagctg | caggctcacg | 180 |
| tgtaagggga | aggccaggca | aggacccagg | acagtctgct | gcagaggaaa | ggggcacctg | 240 |
| acagctaccg | acagaggagg | agggcgcact | cccctggagg | aggagcagga | gctgtgagcc | 300 |
| tcctgagaca | gccaatgcta | actcggtgaa | aaaggttaag | accgactaac | attcacaaaa | 360 |
| cagccaaggc | ataagggctc | tgcagcttag | gaatcaatgc | ggaactcaga | tctacatgaa | 420 |
| ttccactcag | caaatgtaaa | gcctttttc | cccttccctt | ccacatctct | tctgggatga | 480 |
| gccccatagg | atcctggagc | aggggatgtc | ccagggccag | tcagaacctt | accggagtgt | 540 |
| gaancaaagg | tgccctttgt | gggtnctggg | gggggcaaca | cttt | • | 584 |

<210> 6169

<211> 569

<212> DNA

<213≻ Homo sapiens

<400> 6169

ggtctgtttt caggtttttt ttttttttt tttttttgan aatgggtcct aaccactttg 60

eccaggetgg tettgaacce ceaggetnta geaateetee teecetggee teecaaagtt 120. ctgggattta caggtgtgag ccacatcaaa atttaaaaag caaaaaagac cccatgattc 180 tgttacactt cttattttaa cttgaatata nagtcctttt gtttgtttgt ttgtttgttt 240 ganacanagt ctcgctntgt tgccgaggcc anagtgcact gacgcaatct cggntcactg 300 360 cagecteeae caectgggtt ctaatgatte tegtgeetna geeteeegag tagetgggat tacaggcatg tgtcaccaca cccggctaat ttttggtatt attagtagaa acagcatttc 420 gtcatggttg cccaagctgg nttcnaactc ctgagcttan gcaatncggc caccttaagc 480 ttccnaaagg gctaggatta caggcatgaa nccncatgcc aggccaaata agaccccttt 540 taatttgaat taccatcccc ttaagcngg 569

<210> 6170

<211> 587 .

<212> DNA

<213> Homo sapiens

<400> 6170

ctaataaaat aaatatttta ttaacgaaag tctggaaaat gtgtgcacta aaaagtgact 60 ataaatgtta aattaaaaaa ccttcaaaga acacatatca cacattcaat ttttaaaact 120 ttatataaaa getetattat aaatacaaag etaaactate tgagtaetaa caacacagtt .180 catacaaaga aacttaacag tagtaaaata cagatatata agatgcttat ttttggtcct 240 ttaggataaa agaactaagt tggtttttt tacatggctc caggcacaaa aatagaatat 300 aagatggtaa ctgcaacatt cttagtgttt atccttgtaa ttctttaaat gtcaccagtc 360 ataatagcaa tgaactcctc ttggtttact gtggtaagaa agaaaatgaa atagtcagaa 420 atataaacat tttatttttt cagaatccac gactaccatt ttacactaag tatttaaaaa 480 attttacatt atgcaaaatt attacattaa gacatggctt tttggctttt acttctttgg 540 587 taggaagngg acctggttat taaaaggnac tttttggtgc caaaatc

<210> 6171

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6171

| caaattcata | ggatgtcttt | ttattatgct | aataatttaa | tcacattcca | tggggtccac | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| aataaactct | ttatattgaa | ttccattcca | taataaaaaa | aaaaaagaaa | aaacaaaaac | 120 |
| aaagcaagga | gctctatttt | tgggaaaaca | atgggtgctc | actgcttaac | tggattgtat | 180 |
| tttatttggc | ttttcaacac | ggcaatacaa | acatattatg | aaatgagtga | aaagggcata | 240 |
| ataattttat | tctaggtttc | tactaccttc | atgattaaga | cttaactagc | tactgctgct | 300 |
| tggccataat | ccactacagt | ccctaaacaa | aaaaactatg | aacaaagaca | aaaataatct | 360 |
| gtaatttctc | ctacaaaggt | taacccaaat | taacttacag | cagaggtgaa | caagctactg | 420 |
| cctgtgtgcc | aacataaccc | agcttgtttt | tattagtaag | gttttacata | ttatctatga | 480 |
| ttggtttcac | actacattgg | caaagctgaa | taactgcaac | agaaatcaca | cagcctgcaa | 540 |
| agcctaataa | ttcctattgg | gcccttaaaa | gacccnaaaa | tttggtgc | | 588 |

<210> 6172

<211> 585

<212> DNA

<213> Homo sapiens

<400> 6172

| cataccctag | tggtgcctgg | aactccagca | agacagaact | gttcattcac | tccctggaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| agggggctga | aaccagggaa | ccaagtggtc | ttgctcagcc | ggtcccattc | ccgtggagcc | 120 |
| cagcagtcta | agaaccactg | gcttgaaatt | cttactgcca | gcacagcagt | ctgaagttga | 180 |
| cctgggatga | tcgagcttgg | tgtgggaagg | ggcatccacc | atttctgagg | cttgagtaag | 240 |
| cagttttccc | cgacagtgct | aaggaggctg | ggaagttcag | actgggcgga | actcaacaca | 300 |
| gcgtggcaaa | acagctgtgg | ccagactgcc | tttctagatt | cctcctcaca | gggcagggcg | 360 |
| tctctgaaag | aaaggcggca | ggcccagtca | ggggcttaga | gataaaactc | ccctctccct | 420 |
| gagacagatc | acctcaggga | aagggtggct | gtgggcccag | cttcagcgga | tttaaacatt | 480 |

| | | | | • | • | |
|------------|------------|------------|------------|------------|------------|-----|
| cctgcctgcc | acttntgaaa | aagtgcanca | gatctgacaa | ggaggattta | ccgcacaact | 540 |
| tgactttgta | aggacagntt | gcttctnaag | ngagtcctga | ctcgg | | 585 |
| • | | | | | | |
| <210> 6173 | | • | | | | |
| <211> 576 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | , |
| | | | | | | |
| <400> 6173 | | | ÷ . | | | |
| caaaatgaag | aactagtatt | ttattccatc | ttacatccat | acaatcctat | taatgggagg | 60 |
| agggcaatct | tcagaattca | ggagttctga | tattgagaga | atataaagga | taaaaaaaaa | 120 |
| ttctctcata | tttaaataaa | gaatcttatc | atgccaaaga | ccaacaacaa | ggcaacattt | 180 |
| accttgaaaa | ttgcttagng | tcctttatgt | gtaattccag | gagggaaaat | ctgctgcctc | 240 |
| attcttatct | ttccttctac | tcacgaaaat | gaagatacgg | tctttccata | tcaattcatc | 300 |
| tatagctctt | tcactcaata | attaaagatt | tgggaaatat | aacctatgtt | cttgggtcaa | 360 |
| caacttccca | agggaagaag | catcttcagt | aactctgaac | ttcacaggaa | aagggtaaat | 420 |
| cttgaagatg | aagtactggc | aaatatatgt | catatccttt | tcccattctt | tgaatgaaca | 480 |
| tacatncatc | natanagtcc | ttggatgnat | ccagctggaa | agaangggtg | aggtaggacg | 540 |
| ttnttccggg | catngtactt | gaatgatgga | tttatc | | | 576 |
| | | | | | | |
| <210> 6174 | | | | | | |
| <211> 597 | | | | | • | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | ٠. | | • | |
| <400> 6174 | | | | | | |
| aaaaacagga | gactatttaa | tccatctaaa | aatacaaatc | aggaaatggg | gggaaccata | 60 |
| ggaaaatcct | ccacctctaa | cagagcgaag | ttactggctt | tctgcttgct | ccaagaatcc | 120 |

caaggettga tgtttggaag gaattatetg ttetteaact acteeeagat acteaagaca 180

taagttacac acatctggag aagggttctg ccctgctgaa gctagatggg agctcaatgc 240 atgggagaaa ggagcatcaa tctagaaaaa aatgatcaaa gaacagctga gtgacagtgt 300 ggggccatcc caggcaagtg ggctcttggt gctctggtgt agccagaacc catacaagct 360 gggctggcct aggaagccca ccagccagcc tgtgttcagc tacagcttct gtgttcttat 420 ttaccatcat cagccacagc ccttgggagc aaagccctta gacgccttct tcaagcccct 480 gctgggtgg ttcatcatta tcttggcctn ttccaaatct gaatgnaagc ctttgacagg 540 gggatcattt ggggaaggat gtcagtcncc tggaggcttg gaatcatacc attgccg 597

<210> 6175

⟨211⟩ 583

<212> DNA

<213> Homo sapiens

<400> 6175

gcgacagccg cactttattt ggagttttcc acctaagcag ctcccagctg agctgcatga 60 120 catgtgcaaa agtcccctag aaagctgggc ctcgcagtgt gtaaaaaaagg ccccccatgg ggcagagccg tgcaaccatt ttaaaaaaaag agacagtgag agagaaatca ggccccctgg 180 gagectgget tgggtggagt geacateget caggeeggte catgtgeeag gecacteetg 240 300 ctggtttggg ggctgttttc ttctctgatt gtgctttcct ttccaagtcc ttaaaactct 360 ggggttgtag ccaccagaga gaccagacca agtcctcggg gtcaggaggg tatctggccc 420 ggcggtgcag tttgagggtg acctcacaca cagacaccca caacacaatg ctcccccact 480 gctcagcccc gccagaaact cagggcttcc tggcctcgca gccctcgcca gccccttgtg 540 teccaectnt ggeetgace tggeeceaat egggeettat gteacaatte eaggganggg 583 cactggnctt gacacaaaca aaggttttcn aaccctnggg gcg

<210> 6176

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6176

ggagttccag tgggctttta ttgagataaa ttaacaaaaa ccaagatttt accatatttt 60 tggaacctta taaactcagc agactccggt ccatatatgc gtacatacaa cataacacat 120 cccaacaaaa acagagcccc ccccccccc cactggaaca tctgccaatt aagagaaagc 180 caattttccc ttcccccaat gtttctgaaa ttttgagttc ccactgttca cttctcagtg 240 300 gaactggtcc cttgtggcta gggacattgg aattctctac catttttact gaacaaaaaa taattttttt teetgtttea aaaaagggaa tagtgaettt gtttteteea ggeteeeett 360 420 cccccataac caatgtaaaa tacagcagcc tgtatcttaa taacccagcc ctacccctc ccttacccag cattgtctac tggagaattt aaatacactt ctgttggaat ctgtcagctg 480 540 tggatggca gaagtccagg tgccaggcta gctcctntgc ctatgactgn gcaaccnttg 583 gaccttaact tttaccccaa agatgagttt agatccaaag ggg

⟨210⟩ 6177

<211> 591

<212> DNA

<213> Homo sapiens

<400> 6177

60 aaatcacagt taccaaaaga aacagtgaat aatttattac atacgctata ataacattac tctaaacact attgtctatg aggtatatct gagaaaattc ggtaaggaat tgcgcggtct 120 gcattgccaa catgcccagg ttcatagtaa agctttggaa ccgtgaagaa ctagaaaaaa 180 240 gggaagaacg agggaggcag aggaggagac atagagaaag aacctttggt attagtacaa 300 atcttgttct ttgcagggtt gcattgcaaa gcaccacagt acaataagcc caccaactga 360 ctgtatggag gcccagttga agctgaggta ttcacaggaa gaattaaaaa aagcacagag 420 aggtccagac tggctaaatc gttgctttgg ttcaagcaag gcactcgtcc cgtggttatg tcacactttg caagtgaagc atgaggctgg ggggattgct gaggagggt ctgccaagtg 480 ggggtgtttt ctgngtcang ctgccatcgc tctttctaga tcctctctcg tatgggtgtg 540 591 gcagtatgga aaatggggaa agtnatgttc acttataggg agctcttctg t

| <210> 6178 | | • | | | | |
|------------------------|------------|------------|------------|------------|------------|-----|
| <211> 563 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | • | | | |
| | | | | | | |
| <400> 6178 | | | | | | ٠ |
| acgtgaaaga | gtatttattg | aaaacatggt | tactgacagg | aagctcctgg | ctgttgttaa | 60 |
| atccatttca | agaagcagtt | tcttggactg | gaaggcaagg | gcatctgctg | tttgttcctc | 120 |
| gtggcccaat | cccaggcttc | atggtgatgg | agtgggcaga | gcaccctgcc | ttcatgactc | 180 |
| ttagtagaca | gggaccaaga | ggaaactctg | ggtggtccga | ggtgggtttg | agaaatggct | 240 |
| ggcatttact | ggccaccaaa | atcactacag | attctgtaca | agcaaaagac | aaggcaccag | 300 |
| aatgtaagtg | tctctcctgg | gcccaaaatc | ccttctcctg | ggtaccgtcg | tttctggctc | 360 |
| caggctcagc | catagtgata | gacaaagtca | tagctgctgg | gctccttggg | gatggggggt | 420 |
| tgggcttcgg | gaatctggat | gttctccagg | tccaggaacc | cgcagcttca | tctncatgct | 480 |
| taacaaggtg | gccangncac | ttttgggcaa | cttactggac | atgtccttcc | caaaaaggca | 540 |
| cttgnggccg | naatccnaat | ccn | | | | 563 |
| | | | | | | |
| <210> 6179 | | | | | | |
| <211> 589 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6179 | | | | | | |
| gaaaagacca | agtggtggct | ttattagggt | aaatatatca | cagttgctac | agtgaattga | 60 |
| gctttctcag | aagctattat | tttctttggg | tgattggcag | gtatagggca | atagccagtg | 120 |
| gggtgtcagt | aatatgccct | gtccctgacc | tcaaaggtaa | agggatagaa | aagagagggc | 180 |
| gttgacaaac | tcattttccc | acttcccact | catggcttat | attatctctg | agcatctcgg | 240 |

tggctattcc tcatttactt aagatgtttt agtcattctg gatgtgcaaa tgcaaggcaa 300

gcattetece aetggeece taaeggttaa etateetgge ttaaaatttt eetttgetea 360 etteeattet atgagtatat egatggagea getggacatt agagttettt etetttgaee 420 aaaggageea aaatgeggtg aettgaette aaeeeeaaea geecetgtaa gtageeetgg 480 eeaaaeagaa aggetaaetg aatgaagaaa aaaggaagae aatteatete agtggeeett 540 tttgaeaget tneaangggg gtttgeetaa ggaataaeaa ttttentaa 589

<210> 6180

<211> 576

<212> DNA

<213> Homo sapiens

<400> 6180

aaaacttaaa acgtttattt ctggtagaaa tgataaatac tttgcactaa aaatctggaa 60 ttcaagtttt cctcgtactt catgctccct ccctgcccca gaaccttaca aaaatatttc 120 tgtgtagaga gggaaagagc tggtgcctgc tctggaggca acgtccaggt ccgggaaagg 180 cactegtggt etgtgatetg teteagtgat gggaggtete cactegeece acaggeagee 240 tagggaccta ggccgcccca tgatgagatg ccagcatccc ctcagggcta ggcctggaca 300 gaggetgett gtettgggge attageaeaa ceaeteaece agageagtge teetgeeece 360 agecectece cagageagtg ctetgteage eegaateeea aaggteacea etgteetgae 420 tgctgcagga acaatgtgag gctttatgtg gatcaactgc gcccaattgg ctgttgactt 480 aatgctcctg gtgggctgct tatggttaaa aatggtggtt cctgggttgg gaagggaaan 540 576 gggttacctg naaccnccgg aacnnngctt ctacct

⟨210⟩ 6181

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6181

60 gtattaactt gcacgtatta atctaaaggt aatgaccttg ttatctggag gctatgagct agttgaaagc tctagacaag acagctgaca aagatggact ggaaaggagt ctctgagaga 120 gattttatag gtcacatgaa cggactcact gttaagcaga gcctacttta ggtcttaccc 180 aatcaaatgt gtgaccagtg tagccgatta atacacactc aattagatta gcaaggagta 240 300 acatgctgtt tcaagtaaaa aactttggtt gtgaaattgc agctgtttgg agccatttag tagaggcaga gggcatgcag catggtcagt acagggtcct ggggagacgc tgtaggagag 360 420 aaggtgcatc ccctcagcat gctcctgcag tgcccagcat cctaaagtac tcggtggcca 480 gcagcctgct ccagagactc tctcaaacgg ttctgttgtg tgaagtctcc catgagatcc tncccagcac atgggagtac aaataccatg caagttcgtc tggtgacatc ccagcaaatt 540 581 ttnggcactt catganaccg tgttcctttt caaaaggcag a

<210> 6182

<211> 586

<212> DNA

<213> Homo sapiens

<400> 6182

gtagtttaat acagtgatca gaaagctcac agttttctct atttttgaaa gaagttttct 60 120 tegtagattt ttecatttgt gaaaattetg tactgttttt gaeettagea acatttttt 180 tcatcgcaat aatttcatct gtatctcctg agtcatactc acgatcattt ctcataatat 240 catcatcact atcatggcaa gagacacgat ttttgatacc taaacctatt aaagaatgca gtttgtgaac gcctgatttg aaatcatccc ttacaacttc aaaaggatca ctttcagatt 300 360 catttattga gggttgtgta gttctctgta agttttcctc tttcgcaatc atcattctca atteatette agaateagta teateateag aaatgetgtt tetettettg geagttteea 420 480 agccagaagt cttaaaaggn agatttttaa gtttctgagt atcagaaaca ggtcnggaga 540 tgatttagaa ggngtaatgg aatcncaagg tcttttttgg gcacccggtg ctggggtnaa 586 ggggggccct ctaataccct congggcctg gncccatggc caaaac

<210> 6183

<211> 566
<212> DNA
<213> Homo sapiens

<400> 6183

60 gagatgcata ttttccttta ttgctgaatt aatgaggcac caataatctc aaaaacacaa 120 gtcagacttt attctgaaaa taccataaag agacaaaaag agttagtcaa gtattcttgc ctgctggaga cacagaattt caatagcacc ttttttaaaa aaagacatga acatttataa 180 aattgcagaa catatcttac atattcacat ataaaatcat gaaccaataa taatccggat 240 ggaaaaactg atctgtttca tcaacatcaa taaacatttt gttgagagtt tgttccacat 300 attatacttc cctcagtata ttagaagtac ttcagctttc tatttgaagt ggttttccta 360 aaaataacct tttcccctgc tcaggataac cagctattat tatagtatac atattataat 420 480 aacaaggnat atgtctttga cctcatatat gactncccag ttgctcagga atagattact 540 ttcatacaca aatgggaaaa gatgtcaata ttgatgatag tatcgaaaaa gtggagctac 566 tttaactgng taaattaacg atgnca

<210> 6184

⟨211⟩ 571

<212> DNA

<213> Homo sapiens

<400> 6184

gagatggagt ctcgctctgt cacccaggct agagtgcggt ggcgcgatct cggctcactg 60 ccagctccgc ctcccaggtt catgccattc tcctgcctca gcctcctgag tagctgggac 120 tacaggcgcc cgccaccatg cccagctaat tttttgtagt tttagtagag acagggtttc 180 accgtgttag ccaggatggt ctcaatctcg acctcatgat ctgcccgcct cggcctccca 240 aagtactggg attataaggt gtgagccacc acgcctggcc aataaaagca ttttaaaata 300 ccaaatattt taaaatacca aataatcaaa aagtagttgt caacactggc caaactgcca 360 aagatgttaa cattagagga ggcttgaaga agaaagaagg agggaggaat aaaaaccaag 420

gagggagaag agctacatta aaaagagaga gagatgtgaa atgaatccac aacgtcatca 480 tctaagcaac aaggnacctc ttcatcctgg attctggcac ctatatcata tttcnttaaa 540 atggnatgaa tcaanttttn caaatggcan g 571

<210> 6185

<211> 568

<212> DNA

<213> Homo sapiens

<400> 6185

gtagagacag ggtctcacta tgttgcccag gctggtcctg aactcctggg cttcagtgat 60 cctccctcct tggcctccca aagtgctggg attataggca tgagccactg tgcccagccc 120 tcataaagtt ataatatggt agcctagggc tggtactcaa tatgctgtgc ctcgcagtat 180 aatattttta cacactcaag cttgttagct tttcagacga ctttgggttt atagttttta 240 aatgtctgcc agtaaatcag tcaaatgcaa atgctaaaga ctgcttcttc caatatatca 300 ttaaactcat gaagacataa aaatgatcta ttcctgctgt caatataaaa tatagaaatc 360 ttagacctaa aagttctgca tatactttca ataaaagtag aaataacaga agttactgag 420 480 tttgattaag agatgactcc aaaaccttta acttctgaag ggatcatcta cagcattggt tttaaaacta gaaaataaga ccaacaaaaa tatccaaata cnggttggtg aaaaactatg 540 568 ccatctatca attngaattc aaaaatcc

<210> 6186

⟨211⟩ 574

<212> DNA

<213> Homo sapiens

<400> 6186

ataaagaata tgcaatccat ttgggattta ttgcatttaa agaaaacaga ttaaaacagg 60 tatgataaat acagtaagaa aataacttta aatttcaaac aaaacagtga atcagggaca 120

gaattcagtc aaaaagaata agcagtgtaa aggcaataaa gtaataaaat cagttagtgc 180 ttaattagat atggcagggg aaaaggggtg ggagggggag actgagccta tctcataatt 240 gtttcccagc tatatttgag gactgaagtt actttagcaa gtatgttttg taacaagtag 300 aaatacaata aagatgtaaa tttgctttat ttaaaggtta aagttatttg cttagtggta 360 cataaaaggc ttcagaaaat tcaagtttaa caaaaaatgg aagtgtaatc aaagaaagtg 420 cacttaaagc tgtttgccag caattaaaaa gtagcttcta tacagcttct attagatgac 480 540 ttttcaatca caaaaagagc atagtcataa aaaccattct tttcaaaagt gccgtttaaa 574 ttttaaaata aaccnaaata cccccaatca tggn

<210> 6187

<211> 570

<212> DNA

<213> Homo sapiens

<400> 6187

ctactttcca tttaacaagg cacttcaaaa aattctgttc catgtgttca gcctcttgct 60 cccaatttct acccctgtca ttaaaagtca ttctttccct tgcttatggc atgtctagct 120 gacagagggc aggacaactt ttcaacaggg aggtcccact ttacccctaa tcttggaaat 180 gccattccca tgagaggctt tcctaagatt ggtttcagaa gtgtcacagt tggggtcaac 240 300 aggeagggte atgttetgee ecetetetag tggeattete tetggggaga aagateetag gctttctcaa ccatcagtgg atcactcaaa acaaaaacaa aaagaagcag caacttacaa 360 420 ttcctaccac atgtatcgcg ttcatctctc tattcttagg tcctaggagg gtcattatat aaagaaatga atgactagat aaatgactgg aaataatagg atgaaaaaca tcctgtcctt 480 540 caggagttcc atttctagcc nggagactga gaaggcattg acagtgcaan tgcaagtgcn 570 gtgaangaac tntangctca ngggcccagg

<210> 6188

<211> 570

<212> DNA

<213> Homo sapiens

<400> 6188

gcaatttcat agtttttatt cagtggactt aaagccaaga aaccatccca ataattattt 60 acaatttaat aactgaatga ttatcagatc gtgttatact gcaaaactgt tcttacacca 120 tgaatgctga tgctgtgaac tttggatgtt aaactggtaa aagctggagg cttcaaatgg 180 240 catatgcaaa tgtaaccaaa gcctgaggac tatgaagaaa gaggagtttc taccactcgg 300 catttatagt ttttatatgc attgcagaag catggggaat taagtgatct ctgaaaaaaa tgctttaaaa aactgagtat acatatagcc tataaggtaa aaatccaagt tacaagtgta 360 ttaaacactg gcaactatgt tatcagaggg aatactgaat tatatatata cataaactgt 420 cattaaactg tgattacatg atacttccta ccacagctta ttagactgtc aacagaagat 480 attectggng getetetaag etecaggttt aaaagaatta agatetteee ettggeteaa 540 570 agctaatcag tatcattcta tacctaaatn

<210> 6189

<211> 342

<212> DNA

<213> Homo sapiens

<400> 6189

gctatttttg ttttctccc tctgtgttgg tcgcctgtct cgctccctct catgctctct 60
ttctctcctc tattttgtct ctcactattc gtgttttgtg tttgtttcta ggtttggctc 120
aattggtaag ggtgggattg aatttgctga gccccctagt gtaacagtct tctgcctttg 180
tgggtaaaga gtggagagg gggagggga cgacagacag acatcccttc ttcccaccc 240
cctccccacc tgcccccgg caaccgaggg tgcccatttg gtttggtttc tattgnacag 300
acatctnang atggctcaca taggcggnaa gganggaagn cn 342

<210> 6190

<211> 569

<212> DNA

<213≯ Homo sapiens

<400> 6190

| caaaagcact | ctatatatgg | agtggcacca | gatttaacct | atttaaaata | aaagtcatac | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| aaacacaaaa | tatatttctg | tgtcatgcca | gctcattata | taataaacat | gttatgacag | 120 |
| ctaattctac | tagaattact | gtgaatactt | acagtacact | gaattttatt | ctttcacatc | 180 |
| cattttagtt | ttaaagagag | gttcacgagt | taaatgacaa | tggcatggct | atcttgaatg | 240 |
| gggtgcaaac | atcattgggg | aatgtggatc | caattaatcc | gaaggtccgg | tgtgacccgt | 300 |
| attagtttta | tagacaagag | aagggtttaa | gatagggtga | aatgagctat | cagtggtttc | 360 |
| aatgtctcat | gaaagaaaga | aatgcattaa | aaaaaaaaa | gtttgtcaaa | catccgtgtt | 420 |
| atgcaattga | gtattttctt | tgtaacgtgc | aagaaaaaat | atgtatacat | ttcataagta | 480 |
| tctttagaag | tattttgnct | taataggtac | ttacagatta | tncaaggcan | aactgnttta | 540 |
| atgcagnttn | ctacaaaggn | cttaaaatg | | • | | 569 |

<210> 6191

<211> 570

<212> DNA

<213> Homo sapiens

<400> 6191

| aagcccccga | gacgggagtc | ttgctctgtc | acccaggctg | gagtgaaaag | tacagtgcaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tttgctaatg | cacatcctgc | acatttctgg | agaattataa | taaacttatc | tgcaagtgaa | 120 |
| gcaggcctcc | tcttctgtaa | tctctcaaaa | catctggaat | atattgcata | tattatgaaa | 180 |
| gggacatctt | tttcacagat | gccccaccgt | tacaacgtgt | acctttgctt | agtttaaaaa | 240 |
| ttgactttaa | tactttatgc | aaatagtgcc | tgtcccaaat | tctagcatgc | acatggatct | 300 |
| accaacaaaa | aaactaagtt | ttcagtgtgt | gaacataaac | ttcaaattaa | acctctgatg | 360 |
| ctttagccca | tgtatcaatt | accaacagat | tttcttcatc | aatgtctgca | gaccacattc | 420 |
| atgatttcta | taagacagaa | atagagcaga | taaactatac | tgnatatgct | gagtacagaa | 480 |

| tttgtgggaa | cataatgctg | caaatgaaag | ctacaaacac | tctgnaaata | gcttagaaaa | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| actagtaatt | gaaatcncca | agtnccngct | | | | 570 |

<210> 6192

<211> 568

<212> DNA

<213> Homo sapiens

<400> 6192

| gagtcagagt | tttgctcttg | ctgcccaggc | ttgagtgcag | tggcgcaatc | ttggctcact | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gcaacctccg | cctcctgggt | tcaagtgagt | ctcctgcctc | agtctcctga | gtagctcatc | 120 |
| tttcttcaca | tccacagagt | acataccatt | tcctgctgtc | aggcaaatct | tagaaatttc | 180 |
| tacaaatccc | agaaagaatg | ggtaagcagc | ccctgggtcc | cttcctagcc | ccttaccttg | 240 |
| atgacaagat | ccacatagcc | gtgatcctca | tcactggtga | caggagtgta | tggcctgatg | 300 |
| accaggctgc | catcaattcg | ggtggagagg | tagatatgtt | tgcctgggga | ccgtgcagag | 360 |
| agctacataa | gggttgtctg | tgatgtgctg | catccctcaa | aatactcaaa | gagatttgag | 420 |
| agaacaagat | gtcttgcttc | tgctgtggtc | ccaaggagct | acaaggcagg | gaagattgcc | 480 |
| ccattgagcc | ctcagttgga | tctcttataa | gcgccccagt | tgaggaaaca | cttatttccg | 540 |
| cgnttnctgg | cantactggc | agaacctt | • | | | 568 |

<210> 6193

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

⟨400⟩ 6193

cggcaactat aggctttatt ttcttgccaa ttctttacag aactgtaagg cagttgcttc 60 tttcttccgt tgtagatagt cttctgttat tgctacaaac tgggattaat ttttaagctt 120 caaagttaca ttattgccag acgcagtggc tcatgcctgt aatcccctgc actttgggag 180

| gctgaggcag | gtggatcacc | tgaaggtcag | gagttcgaga | ccagcctggc | caacttggtg | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| aaacactgtc | tctactaaaa | atataaaaaa | ttagccgagc | atggtggcag | gcacctgtaa | 300 |
| tctcagctac | tccggaggct | gagacaggag | aattgcttga | acccgggagg | cagaggttgc | 360 |
| agtgaactga | gattgtgccg | ttgcgctcca | gcctgggcaa | caggagcgaa | actccatctc | 420 |
| aaaaaaaaaa | aaaaagggaa | angaangtta | cattattatt | gggaataaat | atctgcattt | 480 |
| ccttaagcct | ttggcaggct | atgttacccc | ctatntttgg | agaaggacct | tgaaaagtga | 540 |
| nggcnngncc | ttcaccttat | acctgcnttt | ttt | | | 573 |

<210> 6194

<211> 502

<212> DNA

<213> Homo sapiens

<400> 6194 ·

ataaaagccc ttggaatggt caacacttct tatgaataca agcaaattaa gttgtttaga 60 ttcaatgaca ggctgtcata ttgcaccata caaaaacaaa tttcatcaaa gctttcagtc 120 ttacagtata tacagcaatg cattcatatt gtaaaagggt attttttgt gtacagatga agcaaaacaa tatttttact ggctgaaaca aaaagtggaa caaagtctcc aacaatagag 240 gtcagtggca cctactcctg tgtggctttt gtctctttac tgagcaagag gcttgtttta 300 ggttttcttt gncctctgtt ctagttcatg ctggtgttta ataagacgtt ctatttctgt 360 tccaagtgtt tgnagatttt ccttcaaagt aatatttttt agtaacgtat cctccaaaac 420 agcctgtaat tttcggttga tttccaaaga gagctccaat gttaatccat tggcagctgg 480 502 atgggatgta tataannnn nn

<210> 6195

<211> 569

<212> DNA

<213> Homo sapiens

<400> 6195

aaaaggcagg caggaaccaa catttattaa aactttgctg tgtatatatt atgctggaca 60 gctaataaca tcatattgta attcctactg aatacttttg ctcataagag ttttttcact 120 acagacaaat tgggtaaaat caaaatctga cattacagga attactcaag tttcaatgcg 180 tcactgtagc taagccagtg aactcctttg ttctgctgag aaagagcaag aagaatgaat 240 cttcacagga ctactagaaa cttcttccca gcaaggtatg aggaagccct aagtcaatgg 300 360 tgtaatccta aatcagggtt tgaaaaccca cctaacaggc agagtgaaat taacaggcaa 420 agtgaaatca ggcttccctg ggaaagtctc aataggaaac aacctgtaga tgagtcatct ttgaggtcca ggtgtttctt aactctctcc aagtccttcc caccttcaga atccagcaga 480 540 aacnenaaag agaaettggn caettettet tggeteteet ettateettg getttaeett tggctttgga aacctgntat nacnttggg 569

<210> 6196

<211> 577

<212> DNA

<213> Homo sapiens

<400> 6196

gctgattctt tttctgcatg atccttaaaa gttgttactt cagggactct gtccttagcc 60 ttctttaatg tctacagatg atcaggtgat ttaatccatt tcagtattcc aactaccacc 120 tggaagatgc taataacttg aaaaaattgt cttcagttca tatctgtctt cagaaaccca 180 aatatatgtg teteataeat teetaacaac atagttatat cagateaaca tatgaataac 240 tgaatcattg tctgccaacc taaagtcttt ggtgtatata ctgttttaaa tgctgtgaaa 300 tattataaat atagtgactg attctactgc taagtatcat atacttaaat ccctctgatg 360 ctagtaaaaa gaagaaaagg aaaaatcacc caataatttc aatgcatatg tcttgctttt 420 gccataaaat atgcttggag gttaaatttg ggaaagtaaa aatgccaggg tattaagtat 480 ttattggtga ataccattat tccnccaact acagcttaaa agaaccccta tgtantgngg 540 577 gnccagagtt ngcacttcta tacctagncc ttggaag

| <210> 6197 | • | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <211> 574 | | | | • | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6197 | | | | | | |
| cttttctttt | tttttttga | gagggagtct | cactctgtca | cccaggctgg | agtgcagtgg | , 6 |
| cacgateteg | gctcactgca | agctccgcct | cctgggttca | caccattctc | ctgcctcagc | 120 |
| ctcccgagta | gctgggacta | caggcgccca | ccaccgcgcc | cggctaattt | tttgtatttt | 18 |
| tagtagagat | ggggtttcac | cgtgttagcc | aggatggtct | cgacttcctg | acctcgtgat | 24 |
| ctgcccacct | tgacctccca | aagtgctggg | attacaggtg | tgagccacca | cgcctggccc | 30 |
| acagtacata | atgttaatag | tacctgtggc | gttgtcacaa | gtggaaacca | gatatttttg | 36 |
| ttgcagatat | cttgaaataa | tgtcaatgct | tataatcact | ttgatattat | agttgttatt | 42 |
| acgcctgcac | cagatcttat | ttattggata | aataaataag | cccacatact | tggcattttt | 48 |
| atatttgata | actattatgn | caatataatg | gattncnttg | naatcctata | aacccatatc | 54 |
| tagccttttt | taagaactcc | tccaattttc | naaa | | • | 57 |
| | | | | | | |
| <210> 6198 | • | | | | | |
| <211> 574 | | | | | | |
| <212> DNA | · . | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6198 | | | | | | |
| gagaatgagt | cttgctctgt | cgcccacgct | ggagtgcagt | ggcacaatct | cggctcgctg | 6 |
| caacctccgc | ctcctgaatt | caagcaatcc | tcctgcctca | gcctccctgg | tagctgggac | 12 |

240

300

360

tacaggtgca caccaccatg cctgcctaat ttctgtactt gtagtagaga tggggtttca

ccatgttggc caggctggtc tcaagctcct gacctcaggt gatccaccca cctcagcctc

ccaaagtgct gggattacag gtatgagcca ccacgcccag ctgataggag agctttgatg

gaaaccccat atgtgttgct agagtgtgag ctccatgagg acaggacgtg gccaccagcc

| cccatggcac | ccccgcatg | gtgctgggtg | ggggaaggca | cttggcaagt | gtgtgcagat | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| tgcatgacaa | ggtgcaccca | gccttgctcc | aagaaatcct | gagcacacaa | ctgcaggtgc | 480 |
| acaaaagatg | cagacagntt | catgtgtgca | cacagacagn | tactnctttt | tgcagcctac | 540 |
| ttccccagga | tgancacccc | ctttggaaan | anaa | | | 574 |

<210> 6199

<211> 542

<212> DNA

<213> Homo sapiens

<400> 6199

| ctggtcaaac | tcccttttta | ttaagggtta | tcaagctgta | cacggtccct | accctgctcc | 60 |
|-------------|------------|------------|------------|------------|------------|-----|
| gctccgagtt | cgggcagcgc | aattcaccac | tctcccaaag | ccggaccaca | gctgggtgag | 120 |
| gggtgggaca | gagagtagga | gcagtcccag | catgcagtgc | agcagcccaa | agcctcgggc | 180 |
| gaggcatcgc | ccttcatccc | ccttcagggc | acagcgagat | gcgggccaga | gctcttttgc | 240 |
| tgggacgtac | acagccaagg | tcaccctcca | gcccggtctg | tcccatgtgc | aggtgatggg | 300 |
| gggtacgata | agcagcaatg | agggcccagg | aagacctcag | tctcctgggg | gcccatccta | 360 |
| aaagatggca | agggcagcaa | agtatttcca | tcctgctcct | acaatttaga | aaccttcttt | 420 |
| tttagtgtca | aaatatagcg | ttgaggggag | ctggacgcta | gggtcttacc | ctaacgcaaa | 480 |
| gcaaaaaagcc | gaacngnacc | ggaaccagcg | aacngaacan | gggccagcng | nacacacang | 540 |
| gc | | | | , | | 542 |

<210> 6200

<211> 567

<212> DNA

<213> Homo sapiens

<400> 6200 ·

ttttatttta aattcagggg atactgaatt tgcttaggac aatggcctac agctgcatcc 120 atgttgttgc aaaggacatg atttggttct ttttttacgt ctgcggagta cttcgatggt 180 gtatatgtcc cacattttct ttatccaatt cactgttgat gggcacctag gttgagtcca 240 tgtctttgct attgtgaatt gtgctgtgat aaacatacaa gtgcatgcgt ctttttggta 300 gaatgatttt ttttcttttg ggtgtatatc cggtaatggg actgctgggt caaatggcag 360 ttctgttttc agttctttga gaaatcttta aactactttc cacagtggct taactaattc 420 480 acattecete caacagtgta tacatgttet ttttetetge agetttgeca geatetggtg gttttcgact ttttaataat agttggctca ttttctaagt gaatggttgg tctttactgn 540 tgagtattgg gagatatntn catctan 567

<210> 6201

<211> 571

<212> DNA

<213> Homo sapiens

<400> 6201

ccataaagga tetteettet teeccaagtt agagtggaga aaacaggaaa aaaatacett 60 cagcttaggg tggaaaagga aggaaaaccc aagatgagtg caggtgacga ccgggcggcc 120 cccacagggt ctctgcagga ccacaggagc caagactcag gcataagagc atcacccttt 180 cagcagccaa ggcgggtggc accttcccct ccatggtcac tggaggctgt ggggccatag 240 ctgcagagaa cgcaggcggc gggagaccct ctcagcctct cttcttccaa gctcagtttc 300 ttgagatctt ccaggatacc cacaaaaaaa gggggtgaac ctttaacaat gccccagagg 360 agettegtgg ctacaggggg cetectgace eccaacecag eccteteage caggeeteag 420 gaggetagtg tgaceteaaa aeteanagee eecgtgagae acagggeeag eeagteecat 480 gccttgcaaa agggaacgtt ccttccaagt gtggattttg gggctnacct ttgnntttcc 540 tggantgnct tggcanttag ggaaggaatc c 571

<210> 6202

<211> 573 ⁻

<212> DNA

<213> Homo sapiens

<400> 6202

| ctatagaaag | tttcatctag | ctgtaagcaa | agtcttttca | acaacaacaa | aacaaaaccc | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tccaggaaaa | actatatggc | tgtgtgagac | aaataagcaa | ccatttgata | gtgatttttg | 120 |
| cctaaatttt | aaaataaaaa | tgtccacact | cttttgttaa | aacattaagc | ctctgtcaaa | 180 |
| aatgtatttc | ttattttagg | gtacaggatt | aaaggacaag | atgatactca | caagtaaaga | 240 |
| aaatttacaa | gaaaaaactt | aacaaaagtt | tcaataaaag | tattgtaaca | ttcaaacttg | 300 |
| acttataaca | aaagaaacaa | gattgcaaac | aaaaatgttt | acggggtttc | caaacataaa | 360 |
| taaatgaaat | agtgtttagg | cagtagggct | catgctgatg | gctagcagga | agttaacaga | 420 |
| gtgtaactta | cttggaaaaa | atctttaatg | tcaaataagc | ccaaattatg | gactgcagca | 480 |
| atttaatcat | cactggcatt | tttcttactt | пссааатааа | gccttgatta | accattcatc | 540 |
| cctatatact | catcccttac | ttcagaaaat | ggn | | | 573 |

<210> 6203

<211> 570

<212> DNA

<213> Homo sapiens .

<400> 6203

gagatggagt ttcactcttt ttgcccaggc tggagtgcaa tggcatgatc tcagctcact 60 gtaacctcca cctcccaggc taaagtgatt ctcctgcctc agcctcctga gtagctggga 120 ttacaggtgt gtgccaccac acccggctaa ttttgtattt ttagtagaga tgaggtttca 180 ccatgttggc caggctgatc ttcaactcct gaccttgtga tccacccacc tcggcctccc 240 aaagtgttgg gatttatagg catgagccac ttcacccggc cccatccttt tatttcaact 300 tgaaaagaac taaacccaaa accagcataa aaacggcaat aataaaaatc agagcagaga 360 taaaccaaata caaccaacaa aactaagagt tggttctttg aaaagatcaa ccaaactgac 420 aaatccttag ctagattaag aaaaaaaaag aacattcaat aactacaatc aggaaatgaa 480

| aganggacat | tactaccaat | acgacngaga | ttaaaaggat | tttagagaat | ntatgaagaa | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| atggtgcctc | caanttaata | cctaaaagaa | | | | 570 |
| | | | | | | |
| <210> 6204 | | | | | | |
| <211> 587 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6204 | | 5 | | | , | |
| attttgagac | gtagtctcac | tctgttgccc | aggctggagc | acaatggcac | gatctcaact | 60 |
| cactgcaacc | tccgactcct | gggttcaagc | gattctcctg | cctcaatatc | ctatgagtag | 120 |
| ctggaattac | aggtgtatgc | cccacgccc | ggctaatttt | tgtattttt | tttttttaa | 180 |
| gtagagacag | ggtttcacca | cgttggccca | ggctggtctc | taactcctga | cctcaggtga | 240 |
| tctgctgacc | ttggcctccc | aaagtcctgg | gattacaggt | atgagctacc | gcacccagtc | 300 |
| taccctcatc | atctagattc | aacttagttt | gcatgattat | ggagcatgta | tttagactcc | 360 |
| agtatcagat | tagggatgac | gacggatggg | gtgttaaaac | aagttattta | acagattcct | 420 |
| aaatttaaaa | ggtttatata | accacattct | aacagtatac | ataaacacta | caaaaaagga | 480 |
| caaagtattt | tgggggaacc | agatccttta | aacatctgga | ttctggtaat | ataaatctga | 540 |
| ntaagcagct | gattttagat | tacaattcaa | ttgaaatttt | tgncgaa | | 587 |
| | | : | • * | | | |
| <210> 6205 | • | | | | | |
| <211> 591 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| , | | | | | | |
| <400> 6205 | | • | | | | |
| agataaggtg | gacacgtaaa | agaaagcaga | gaggaaaggg | gaaggggtgt | ctgtgatgag | 60 |
| ttagaaagtt | agtccttttt | ttaaataagg | aaaggaatgt | gagctggtat | tgataacgcc | 120 |
| tggtattgtg | gcgtgtctgg | gcatttaaca | aaggcaaaaa | ggaaaagagg | agaagaaggg | 180 |

aaaaaggtgg ggggtactat caattaaaga ataaaagatt gatcgggtta tttgaagaga 240
aacctcatca tatcccacac caacccgtct ccccttcctg gcagttaaaa gcctgggtgg 300
tgaggcaagc ctgtctggat tcaaacggca gtgacgtctt gggcacgttc tgctctctga 360
acctctctgg ggtgttcagg gctgcggtga agaacccgag tccagagtca gatgctgccc 420
tagtttgaat ccaggcattg ctatttactt gctgngtgac ctggggcang tggcttcatc 480
tctctgggcc tcaattcctc atctgtaaga cnggctatta ccacaccttc ctcttgatta 540
ctccctgtgg ganggaataa atgatnaatc cctggaaggn gtttgnacca n 591

<210> 6206

<211> 591

<212> DNA

<213> Homo sapiens

<400> 6206

ggcaacacag tettgetetg tegeceggge tggagtgeag aggegeagte teageteact 60 acaacctccg cttcccaggt tcaagcgatt ctcatgcctc tgcctcccga gtagctggga 120 ctactggtgt gcgccaccac gccctgctaa tttttgtatt tttagtagag acggggtttt 180 gccatgctgg ccaggctggt ctcaaactcc tgacctcagg tgatccactc acctcagcct 240 cccaaagtgc tgggattaca ggcatgagcc accatgcctg gccatacaca tcactttgaa 300 acctgttttc ctttccaatc taaaaatgag ttcggttcta tttcctgagt cttcctctga 360 agggtggaga cacagggccc tgatgggaaa ggtccaggcc tgagaacctc ccggcacacg 420 tnccggccac taaggggaga acacttacca cccagtccgg ccaggacccc cttaacttca 480 caccagttcc ccaaaaagcg tgtccagaac atgaggacna aattcatnac cnggaaccgg 540 591 tcaagttctg ggccacaaaa tcctccaana cttggccttg aggacgcccc c

<210> 6207

⟨211⟩ 581

<212> DNA

<213> Homo sapiens

<400> 6207

ataacaaccg ctaatcagtt tattaaaata gttgactttg agcatctgca atggtgactt 60 ccacctcaat tcctggctca acactgatgg aagtcaactg cttaacaatc tcagaaggac 120 tgtgcaagtc agtgggtagc ttgtggattc tcatctggaa acgatcccat gtctctgaac 180 cttcaccaca aggagatttt cttatagtga ttctcaaagt cttggcaggc attcaaactg 240 gtcccttcac ttagacattc ttttcctttc ctcctctgaa tccagtcagc acacaccttc 300 tccagggatt ttacgctgcg gatcattaga gggattcgaa tttggtgaat ggtcacctcc 360 420 agcttcacag gtgttttctg gtatctttaa aagccttggt gcagtgcggc ttctggctga cttgttcgga acagcgatga gtgaggagca ggaatggcag actgcaactc tgcaccactt 480 540 atgactgcat ctttctcaaa gagctgnatt gcttcntttt ggttggtggt ttttttgaga 581 cagaaattca ctcttggtgn ccagcttgga ntgcaatggc n

<210> 6208

<211> 587

<212> DNA

<213> Homo sapiens

<400> 6208

60 gtcatttgaa aagttcattt attatatacc aatatacact ttctgtaata aaaaagaagc ctcccaatac attgagccat cttataaatg aaataagaaa ataaaatttt catctgttta 120 caaatggggt taaattaatc agcacaagct atcatatgta tgtctgccct gcagtatata 180 240 tgaattttaa teetggttat gaagaaaaaa atggtgettt attatttgge aetataggat 300 gctcttgaac attcagaaga tacctttttc cactttttat ttttgtatac tttttagatg 360 agtgaaaatg taaatatatc ctaaagatgc tatttggcag atttttttca aataatagta gctcaaaagt acgtgtatga tacttgtact tcataattgg ctttactaaa atataaaata 420 cacaagtgat cttactatga tttgaaaaaa aggtagtgaa ctncagaagt tttaagctgt 480 540 gagtaggaat ttttaaatcc attttatggt aagttggtat agaagtgagc cagaatggat 587 cgggtgcatt tcttccnann ggtagccctt atccttttcc gggnaac

<210> 6209

<211> 582 <212> DNA <213> Homo sapiens <400> 6209 gagacagagt ctagttctgt cgcccaggca ggagtacggt ggtgcaatct cggctcactg 60 caacctccac ctcccgggtt caagcaattc tcctgcttca gcctcccgag tatctgggat 120 tacaaatgcc cgccactgcg cccagctact ttttgtattt ttagtagaga cagggtttca 180 etgtgttgge caggetggte ttgaacteet gaceteatga tecacecace teggeeteee 240 aagtgctggg attagaagtg tgagccactg cgcccggccg agaaagagtc ttttttctaa 300 atcettetet etttteaaaa tteeteaata gaacteatea eeaatatatt tetteatggt 360 ggtatactgt gtagctacaa ctgtgaaata actaaaattc agtatcagag tcttggattt 420 acaatactgn attttttcac agatctcttc atccgcttaa ttttcttccc taagatttgg 480 tgacttgctt taaaatatac cggaaatatc tacaancntt tnctaacagt aaaccagccc 540 caaaagcttt ttacaaggcc naactggatt ttccttccaa cc 582 <210> 6210 <211> 571 <212> DNA <213> Homo sapiens <400> 6210 cctgagacag cagagcataa gtccttttaa ttatgtgttt gaaaaatgtc acaagtcaaa 60 aaaggaacac aaggcaggct ccggntccct ccacccccgt gaggagccct tgtccatttc 120

180

240

300

agccttgcac tcanaaagac cccgggggtc ttgtagttcc acgtgcttca tgtttcgngg

tatctgtcan agccttaaaa caggcccacc cactactgng aaatttcaag gaaataactg

attcagttaa ataacagtcc caaggtagac ctggtctcac aggtgaccac ccgnttaaat

ccagageett etttetgte caaageeact gaaatttgat eteeteette acacatteee 360
aggteeccaa tatgeeace acettetgae aggtggetae aggtetacae taatggaage 420
tetgetaaaa acatnteeac ecaaceette tgeeaacgag gteaagetgg caaggeatnt 480
gntaageece ttaaactggt cancegeaag gtattgenee cantteeggg acceaaacaa 540
taetteengg acetttggaee ttettettn a 571

<210> 6211

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6211

aattttttta aacttttatt ttaggttaca gggtgcaaat gcaagtttgt tatatatgta 60 aacttgtgtc acagaggttt gttatacaga tattttgtca cccaggtact aagcctggta 120 cccaatagtt atttgttctg atcctagttt ctaggatcct gatttctagt tttgtgaaga 180 atgtcgttgg tagtttggta ggaataacat tgaatctgta aattgctttg gcagtatggc 240 cattgtaatg atactgattc ttcctttcca tgagcatgga atagttttcc atttgtttgt 300 gtcacctctg atttctttga acagtgtttt gcaattctca ttgtaaagat ctttcacctc 360 cctggttagc tgtattgcta ggtattttat tcttttgtgg caattgtgaa tgggattgtg 420 ttcctggttt gactctcagc ttgactgtgt tggtagatag gaatgctaga agatttttta 480 atgtgatttg gattctgaac ttccttaaag tttttttatc acccaaggag cttttgggac 540 581 gtctatgggg ttctagaant aaatctgccg ntgcaacagg n

<210> 6212

⟨211⟩ 581

<212> DNA

<213> Homo sapiens

<400> 6212

gatgggagaa ggggatcacc aaatccttca caaatctaat aactatggat cttctcccta 60 gaaaaaaatg gacatatgta catgcacaca aacccacaat tttgtgtgta ctctcaaaaa 120 tetgggetee aggttaaaaa tteetatgtt aagggaaaag etagteaett tataaaggtt 180 aagggtgtaa aagtatatta agtttccctt gcacatgatg catcatgcag gaatttaaca 240 300 acaacaacaa aaaaaaaaac ctgaagcttt taaagaattt ctcattcttc tgtcattttg atttcaattt gcttgctatg tgaagtagtg gcttctttta tgtgttgtat aatttcttct 360 420 gtcctttagt gtaaaattaa ttatgactat gattttaaag cttcaggttt tttaaaaaaac 480 catgtttaaa taaaatatta ggtaagcaaa aggtgaagct tacaaggaag gtgtaggaat tacaaagtga ggcaaaagat catgtttagc cattctatgc caaaatttag aanataaggc 540 581 tnattggccc aaaagccntt tttggttacc gggggcctgt a

<210> 6213

<211> 575

<212> DNA

<213> Homo sapiens .

<400> 6213

gagacagggt ctcactttgt cacccaggct acagtgtagt ggtgcaacca tggctcactg cagcettgae etgaceteet gggetgaagt gateeteeca ceteageete etgtaettta attactaaaa attetttagt geggteecac catttgeagt tttgaattat gtgtetgaat 180 gccacaatga cccactggca tttccaatag gtcatgtaga ctggtgagat ctgccagaac 240 tccacacagg gacagccgga gaaatcagag atgttcagga gcaaagtagg cgcacagggc 300 tattttggtg aagtttcaat ctaccacgtg gaaggaatat tagacacatt cgctacggct 360 ccaagagcat gagtaagaca aacacagaca ggccgcaggc aggcagatgt gtgagtgggc 420 ccgcagaaga atgtccagca ccagtgccat gccacaatgg ggtgcacngg ttaaagacac 480 agggacgetn tgatggetta atggeaance tecaaceage agetteaage anttntaegt 540 575 ggaccaaaca nttcatgang gggcctgctn ccaaa

<210> 6214

<211> 567
<212> DNA
<213> Homo sapiens

<400> 6214

gagtttggct atttattgat gccacacaga gggaggttat gattacagtc tggttttaag 60 120 tactgaaata tccaccaagg taccccttga ggaggctggg tagaagggga aatggcaaag cagcacagag atgcaggag ggcaatgggc tgggccgtgt atgtcataca attattttgg 180 240 aggacaatga tgggtaggat tgtgctttac ccaccatgtt ttttagtaac ataacttaga atactacttg aataagcagt acagacaaca ggagtagcat caaatatgtt agctaggttg 300 360 taacaccagg cagttcatgt catgtggcct ctccttcaaa agtgaatcac tgtggaccaa gcaccagaaa catcgtccca aagattcatc ttgaagtcag aaaggagaag agctaagacc 420 tgcactctct ggagtagcag tgtgcagctt tcaaagtttg gaagatttta agtcaactaa 480 atgggatggt attatctaaa accatttaat ctttacaatg gggttcanaa actggatgaa 540 nggtttcana acnntcctgn ctntttg 567

⟨210⟩ 6215

<211> 509

<212> DNA

<213> Homo sapiens

<400> 6215

ctttttgag atagggtete getgteacce agaetggagt geageggege gateaegget 60 caetgeagee tegateteaa gegateetee tgeeteagee teecagagag etgggaceae 120 aggeaeagga caecaegeet agetaatttt ttttgtattt tttgtagaga tgatggtete 180 geeetgttgt eeageeggt eteaaaetee tgggeteaag taatetteee teeteageet 240 eeeatagtge tggtttaea tgtgtaagee attgeaeetg geetaaattg getgnnteat 300 eteetgggtg gagaggttgg aaagetggga ataeatttee eaggeeeett geagetagge 360 ttgngggtgt gaattgatte tgeeagttag gggtgeteae gtgagaettg ggaaagtgga 420

| aagaaggcac | acganttttg | catcttttac | agaccttnag | gacaataaan | ggacctctng | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| cnaangggaa | ccactttttg | cnaaaaggt | | | | 509 |
| | | | | | | |
| <210> 6216 | | | | | | |
| <211> 585 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6216 | | | | | | |
| aatgatacca | acacttccat | gtacattgtt | ctggagtttc | tcaacagcag | cactatatac | 60 |
| attatccaac | agagattcaa | cctccacaag | ggcaccattc | tctccaccta | ctaaagtctc | 120 |
| cggtgataaa | tccatatcat | cgagctttac | ttctgttgct | tccactttct | ctgcttttat | 180 |
| atctactaaa | agatcatgta | cttccacatg | tacaccactt | cctggtctat | ctgaatttcc | 240 |
| aagaatatca | tctgacactt | ttgttgacat | gagtaagtct | cgagtatctg | tgctgacagg | 300 |
| gtaatcggtc | tcactttctg | ggctctggct | ttgtgaaaga | tcttctatct | ctcgaatttc | 360 |
| cattccacct | tttgctcctg | ttgtctgtga | tgaaagacca | gagatggtgc | tcacattccc | 420 |
| tttctttccc | ttttaatgn | tttcctcctc | tggctttgat | attcctcata | cattttggct | 480 |
| agggattccc | tatgagctta | taagngacct | tgggaatggg | ctattgaaag | ggatccccc | 540 |
| aaattttcaa | gcctnccatt | caaaattaat | gggtggatca | aaana | | 585 |
| | | | | | | |
| <210> 6217 | | | | | | |
| <211> 525 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| , | | | | | | |
| <400> 6217 | | - | | | | |

出証特2002-3046776

60

180

gagacagagt ctcattctat cacccaggca ggttggagtg cagtggcgtg atcccaggtt

gcagtgagct gagatcatgc catcgcactc cagcctgggc aacagagtga ggctctgtct

caagtgattg ntcaacttcc acctcctggg ttcaagcaat tctcctgaga ggcggaggtt 120

taaaaaaaaa aaaaaaaaa aaaaaaatca caatagcaaa gacttggaac caacccaaat 240 gcccatcaat gatagacngg ataaagaaaa tggggcacat atacnccata gaatactatg 300 cagccataaa aaaggatgag ttcatgncct ttgcagggac atggataaag ctggaaacca 360 tcattctcag caaactaaca caagaacaaa aaaccaaaca ccatatattc tcactcataa 420 gtggacagtt gaacaatgag aacccatgga cacangggag gggaanatta cacactggg 480 ccctgatggg gnaatggaag gggtngggn aaggacancn tttgg 525

<210> 6218

<211> 582

<212> DNA

<213> Homo sapiens

<400> 6218

gaggaactat gtaatctttt tccactcttt tgaaggagaa aagttaagat tagagggtct 60 catggttttc ctcttttacc cagggaattg atattttagc taaccaattc ccaccatatc ccctggagct agggatgttc ttccaaagga aaatgaatca cagctgcaat ctcacaaaat 180 gccttgatcc cacacagctg cctctctctc cctcctgggg accaagaagg aaacaagggc 240 tatgttagtt gtcattcagg tcagggagac agacgctccc tttgaccttc ttgactccct 300 ctcttcctcc tctccatctt taacccctgg attcaggaga cttgtttaac caggtcacat 360 tgagcattac tettgettea tetgaagate acceatacte caetectace caatgteaat 420 ttaggcaatc cagtggtcat actctgtgca cagcctcctt cccatatcat gttttggaaa 480 caccettttg gngcattcga actetgaatg aggagcacet tacaccectg ntgntggaaa 540 ancngactta aatggataaa ggcactggan ccttacattn tg 582

<210> 6219

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6219

gcccatctgc cccttctacc atgtgaggac agtgtttaaa gcaccatctt caaattagaa 60 actgggccct cagacaccaa acctgctagt gccttgatca taaacttttc agcatccaga 120 actgtgagaa ataaattcct ataatttata aattacccag tctcaggtat tttgttacag 180 caccacaaac agacttagac actgtatgat tccattactg gaactctaga aaagcaattc 240 taatctttct aaaaagatag gaaagagtca ttgtttggag ccagcaaagg ggaaaggatt 300 gattgggatg ggacacatag gaaattgccg gtgtgataga aatgttttgt ctctatctat 360 gaacaggcat tcacagctca gtgacttccc tttattctgt tgggaaagag ctgcttgaaa 420 ggaggaggga ttctctgctc ctagatgctt atgtcttatg taggcaggtt gtaaaacatg 480 ggangeetge tecageecag cattleetgt gacagateag cegaatatge etaatetgge 540 581 aattaccagg tcaagttgct ggtatcctta ctaattctct t

<210> 6220

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

<400> 6220

| agtagagaca | gggnttcacc | atgttgacca | ggctggnctc | aaactcttga | cctcaagnga | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tctgcctatc | tcagcctccc | aaattgctgg | gattacaggc | atgagccacc | gngtccagcc | 120 |
| ttatgcacct | ttttgnaaat | tcatttagca | cttctttcct | gactttaaat | gtatgngana | 180 |
| ctttaacttc | tcatttgaat | cagttgnaac | atcttactgg | ttccctcatt | aatcaatcag | 240 |
| ttaaatggaa | ttttgggcat | acattcattc | atatttgnat | aagtcataat | ttatttaaat | 300 |
| tattctttag | ttctacacat | aggcatgnga | acacacactc | acagatagac | actacgccag | 360 |
| tcaaatttaa | tattatatta | tgcttggatt | ttaagtactt | ctcttcacat | acttctcttt | 420 |
| atttttaaa | atttgntcaa | gaaggcattg | gattatttca | anaattggaa | ccaaagtttt | 480 |
| aaaaaacttt | gaaaaaaatc | aagtaanggc | tttgnaaagc | ttttacacgt | atnttaacct | 540 |
| tnaaaccaac | naggggattt | aaaatccggg | gag | | | 573 |

| \2107 0221 | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <211> 576 | | · | | | | |
| <212> DNA | | | • | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6221 | | | | | | |
| ccagattatc | aatgtgagga | agctttaaga | aaataaaatc | aacctactca | tttatttaaa | 60 |
| acagaaataa | catcatgcat | ttatttgaag | gctctgtaag | catacatgga | gtgaatcatt | 120 |
| taccttcagg | gctttttcat | aaaacttaac | attaaattaa | ctaagtagat | gtatctcagg | 180 |
| gagttacaat | aagggacatg | gttttaaaca | acttaaaaat | gttttaaaag | aaaacaaaag | 240 |
| gtaaatacct | tataataaca | gacctaattt | ctaattttta | gaattaaaaa | aaatctgcaa | 300 |
| gcaaaaatta | cggactgcag | tataacaagg | gtttaaaaat | gttaatagct | tagatttaac | 360 |
| atgctactaa | tgctcactct | acatctactg | aggtagatgg | tcatcttagg | atgcccacat | 420 |
| aggtagttaa | acaaagcaca | aaccttctgc | atatgggtac | gactatcaaa | gctctgcaac | 480 |
| gaatacagng | tttgtcaatg | ctggcccaac | tggtgagtct | ggatatggac | ttaacaagca | 540 |
| gaccnaaatg | aactgcaang | cnatcactaa | aaatta | | | 576 |
| | | | | | | |
| <210> 6222 | | | | | | |
| <211> 581 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | , , | | | |
| | | | | | | |
| <400> 6222 | | | | · . | | |
| ccgtcatctt | tgccttttaa | tataagattt | ggtttcatca | tttctgagtg | taacatattt | 60 |
| cttctaaaaa | tagagctctc | tgcttgtctg | aaacttcgcg | ttcactggga | ggtgaagggg | 120 |
| aataaggctg | accgtaattc | tggggtgacg | ttgccagttt | catagtcata | gataaacttc. | 180 |

240

360

tcaagggctc ctggatgctc acagcaagga tgagttcatt tcaaatccat ggtactgaag

cagaggetta ttgtccttga cttgggagga ggaggtctct gtttgatgag cgtcgtttgc

aagcatgaca aagcgtttca aggccccatc tgtgcctggt gtggactcaa accgttcaac 300

| atcaaggatg | gctgcggcct | gcagggagca | cttctctgac | cgcacttgag | tgatgagctc | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| ttgcacatca | ggcaggtcct | ttaggctgtt | cttgaaggcg | ccagcatcag | aatttacttc | 480 |
| attgcatatt | tcagggactc | tggcatacag | gacaaggctt | cgttccactt | ntttancnag | 540 |
| cncataggac | tgaccatgaa | aaaccnctgg | taacctttaa | t | | 581 |

<210> 6223

<211> 504

<212> DNA

<213> Homo sapiens

<400> 6223

| gctgttacac agaagaga | ct agttaagtgt | accattgaag | actattacgc | atcacgtgcc | 60 |
|---------------------|---------------|------------|------------|------------|-----|
| tacgttcatc aggcctta | ag ccctcaaaga | acaacagcat | caggggctct | gtgagagccg | 120 |
| ccacctgagc ctcaccgc | tt agttcataaa | acagccctgt | gtcctttcta | caaagccagg | 180 |
| tcgtgttttc tacccaca | gt tcaggactcc | agcgtagaca | gcaaacacaa | aatttgtttc | 240 |
| ctttttgaaa caaaacag | tc ttagtagaag | caaaacaaac | aaccacaatc | taaaccagcc | 300 |
| gcgaggaacc ctttncta | gc tggaaaggag | aatgtgtcgc | cagcgattcg | gagtgaaaag | 360 |
| gatgggaaga tgcctgtg | cc acacccttga | atgtggtcca | cagattcacc | agctccaagg | 420 |
| cagcatetet ttecaaag | ca cctgcagcag | gangctgtgt | gggggcaaca | aanntcactc | 480 |
| ntgataccan agaatncc | cc cggn | . • | | | 504 |

<210> 6224

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6224

agtagagaca gggtttcacc gtgttagcca ggatggtctc gatctcctga cctcatgatc 60 cgcccgcctc agcctccaa agtgctggga ttacaggcgt gagccaccgt gcccacccag 120

gatctacatt ttaacaagat ctcgatgatt tgtgcatgca ttaaaggttg agaaagcact 180
agtctacatg cccatctatc tggacacccc acagccactc cagcccagca tggccatgct 240
gaatgcagac ccctccccta gaccacaaat ttctgtttgg ttttccttcc tgatgaacag 300
tttctatcct atgtatggag atgggagtgt ggtctggagt ggggtcaatg tccccgccat 360
gtggctgcct cacttttaa tgggctccaa atgacacaga gctgggtcac ctgggtctca 420
ctgcagtttc ctggatcagg gatactggaa agatgtcatg ttccacatgg acaccagcct 480
aactttaagg ctgacncaaa aagactcctt ccagcatgca agtgggatgg tctttttgta 540
ccacgctgtn cctttcnctt aatggngcca gggccctna 579

<210> 6225

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6225

60 aggtttcaag cagtctttac ttgggtttaa aaacagtgct tcatgcattt acaataagtt attacagaac tetaagteac tgatgeacae acaaaageta aacceaactt actaactatg 120 cagacetete etgatetece caggetggge agtaattagt acettacagg tgtgatecat 180 240 ggcccagaga aggcagccac tgtcagttac agttggactg ctgcatcaca gtggaggcag cagagttgaa gatccacaga gggctgtaat acagcccaga aaagacaacg gagagtgaag 300 gctagaaaca ttgaggaagg ggtcaagaag cacttgtact tcctgttatc ttttccaata 360 gaatatteet geaagttace cateagaaaa aggtgtteag agggtttgaa aaagaagtgg 420 480 ttagcccatg ccagtgaagg tgacaaaaaa caaaacaact tgatttttgg tcatatcaga aaaggatgga ggggaacacc caagtnettg caegggeeec aagtgettee anceaaagga 540 583 ntgctgtttc accagcccaa antttntaac agcaccacca aaa

<210> 6226

⟨211⟩ 571

<212> DNA

<213> Homo sapiens

<400> 6226

gtagagatgg agtotocota tgttgcocaa gotgotgtca aactootggg otcaagggat 60 120 cctcccacct tggcctagat ttgtattttt aattgacaaa taataattgc atgtagttat 180 gggttataat gtgatgtttt gatatagcta catatactat aaaatgatta tattaagctg 240 attaatatgt ccatcacctc acatacttat tttttataat gaagacattt aaaaacgtat 300 tettttagea atettgaeat ttataataee ttattatgag ggetaaaaat gaataatatt 360 aataatcctg tacaatgggt ctcagaaact tagccctctt gtctaactga aacgtctgta 420 ccgtttgatc aaccaaagat ggcttttgtt ggcaattcaa tttttttgac aaattcctca ttttgtcttc atttggagtt ttatccatta caagagaga agatgacnca agccagaata 480 gaggaagatg aacaaccctc aggatctgaa ggacactggt gggttttttt aattaatttg 540 571 aggtatattg ctaaaacggg ctacttgtgc c

<210> 6227

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6227

cagtttaatg aacatttatt atatattcca actgagtgaa aggcactatg ctaggcagtg 60 agagaaatac aaatgaaaat aagactcaac ctcttttctt acattttttt tttttttt 120 ttttganaca gtctgtctct ctatcaccca ggctggagtg cagtggcatg atcttcgctc 180 actecaacet ceaceteetg ggttaagega tteteetgee teageeteec aagtagetgg 240 gattacagat atgcaccacc gcatctggct catttttata tttttaatag agacagggtt 300 tctccatgct ggccaggctt gtctggattc ctgacctcag gtgatccacc caccttggcc 360 420 teccaaagtg etgggattae aggtgtgage caccatgeet ggeettttet tacatttett 480 atcacggcat ggatacaggc agagtaacac aaactatcct gtaggcagtt ttaaaataag 540 tccatatttg agcncattna aangtattga acagatggga gattattcag aatgagattt

| tgcttnaaag | cctttcncct | aatttcggnc | tggactgnc | | | 579 |
|------------|------------|------------|------------|------------|-------------|-----|
| | | | | | | |
| <210> 6228 | | | | | | |
| <211> 587 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | • | | | ÷ | |
| • | | | | | | |
| <400> 6228 | | | | | | |
| ctttttttt | tttttcaaa | tactgagatg | tttattgcat | tttaaaaata | tccacactct. | 60 |
| taaatatcct | gtttcaaatt | cctcctaaaa | tcctttacag | cacacaacat | caactactgc | 120 |
| agtagcgttc | tcacaatatt | acacttgaaa | ataccattta | ggaacaatat | tttaggaaat | 180 |
| agagggttta | aggcaagaca | ttcatttgga | aaagttaatt | tctctctatc | atccagattg | 240 |
| acacgattat | ttttccacct | cttcagtgcc | ttgggatacg | caacatacat | tcagcaacag | 300 |
| ggcacgcgtg | tgaccctacg | gacaagtgct | gaggttggga | gtgcccactg | aaatatggaa | 360 |
| atattcttac | ataaggcgtg | gccacgggga | catggcatgg | gagggcttgt | ttcactccat | 420 |
| ttcaatctgg | tgtcaggaaa | ttccttatct | ataactgcca | ttcccccagt | aactgctttt | 480 |
| caacaaactc | aaacccttga | aaaggtctaa | gatggttctg | ttaacatcaa | aaaaaaacag | 540 |
| ccttanagct | ttccgacact | gtttagtgat | gaagnctcan | gntnttt | ; | 587 |
| | | | | | • | |
| <210> 6229 | | • | | | | |
| <211> 559 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6229 | | | | •• | | |
| gaggtggagg | tctcactatg | ttgccctggc | tggtctcgaa | ctcctgagct | caagcgatct | 60 |
| gcccgtcttg | gcatcccaaa | gtgctaggtt | acaggcaaga | gccactgcac | ccagtcataa | 120 |
| tctctcttga | ataaaccctc | ttacttcccc | ttttgcatct | ctctctctaa | atcctacatt | 180 |
| tgtctccaca | gataacatct | caccaattta | gagacacttt | tctttctgct | agatcaagat | 240 |

gtttaaagca tttgttctca cttctttcat gaaaccttct gagatcagtc agctaagatc 300
tagttaattg aatcatcaac tactctaata cttctgcctg tcctgttttg ggttgaaagg 360
gacacaattc aaggtcaaag accatgtcag ttgcttcctt tgcattctca acactcagac 420
agcaccctct gtagacctga gtattgacaa aatgctcttc anaagagctt ntccagtcac 480
tctggaaacg gccttcagag gcctccgaaa tagncctata attaataaat atttggccnt 540
ggggggttta acaagtggg 559

<210> 6230

⟨211⟩ 577

<212> DNA

<213> Homo sapiens

<400> 6230

gagatggagc ctcactctat cacccaggct ggagtgcagt ggcgcgaatc tgggctcact 60 gcaacctcca cctcctgggc ttaagcgatt ctcctgcctc agcctcctga gtagctgggg 120 ttacaggtgc ctgccaccac tccaagataa tttttgtgtt tttaatagag acagggtttc 180 accaagttgg ccagactggt cttgaaccca tgacctcaag tgatctgccc acttcagcct 240 cccaaagtgc tgggcttaca ggcgtgagcc actgtgcctg gccagaaagc cctctttgat 300 gaggactgag ttacactgag ttttaaagga tgagtagaaa gtggccaggc aaagagaggg 360 agggaaagct tccaggagga aggagtagct tgtgtgaagg ttctgaggtc agaaaagtag 420 ttttgcaaaa taaaggaact gaaaaagaga tcaggtagag agacagaaag gcnctanaga 480 540 gaagcacata aggtggcana naangagaag cagttcttcc taagatatct atcaagngcc 577 tatttttaac agggctagca ttnttgatga gactgtt

<210> 6231

⟨211⟩ 576

<212> DNA

<213> Homo sapiens

<400> 6231

attttttgag atggagtcta gctctgtcgc ccaggctgga gtgctgtggc gcgatcttgg 60 ctcactgcca gctccgcctc ccaggttcac tccattctcc tgcctcagtc tcctgagtag 120 ctgggactac aggtgcccgc caccatgccc ggctattttt tgtatttttt tagtagagac 180 ggggtttcac cgtgttagcc aggatggtct ccatctcctg acctcatgat ccacccgcct 240 tggcctccca aagtgctggg attacaggcg tgagccacca cgcccggcaa cacatgttat. 300 ctgtgatgga agaaaggttt tactttaaga aaatctgcag ctagtaacac aacaggtggg 360 ccagaccage agetetgget cagattetge tetacaatga taagetgttt aacettegae 420 aagttactaa actgcctgag tccaagtgtt ctcatctata aaaagggtga gcaataatat 480 ctattttgta aagttgtgag tgctatataa aatatctaca gggactctct agtgataagt 540 ggagcancta ctatggtgta aaacatacaa attgct 576

<210> 6232

<211> 564

<212> DNA

<213> Homo sapiens

<400> 6232

aacaaaaatg atcacacatg ataatggcag tggcaattgt ttatataatg gccactacac 60 accagacagt attctaagca ctgatatatt acaaactcat ttaaacctnt caaccttatg 120 aagtaggtat tattatcaat ctcatttaca gctganaaac tgaagcaaat cacttcaact 180 aaggcaatgn ggtctcagga tgtgtgctct ctgttactca naaacaaaag gtacactttt 240 ctgaggccct ntagtgcagg cacaaagaca ccatagctct tactggatct ccagcctatc 300 actctaacac tagccaagat aataactaat gttaaaaatt atgacttgga gtcaacaagg 360 ctaagatata ttttatatac tttataaaag caaagaaagg tatacatttt atagtgaatt 420 ctattcgaca ctgattatag gaaaaaagaa attagtactt taaggaaagc aaactntggn 480 tntncccaaa ttacgtttta aaaaagctaa aatncccata ngggtctgcg tggctaaggt 540 tattatttcn tcaaaaatca aatg 564

<210> 6233
<211> 597
<212> DNA
<213> Homo sapiens

<400> 6233

atcatacaac aaattaacac aaatttattg ggtggaaaat gtgaaaaggg acaaaaaaag 60 gggtagtttt gtactgatat aagagttcat aaagtgataa actcaggtcc aaaatcttca 120 180 gcccacatca aagacttcat gttcttatga ctctagaaac aggccagccc cggctgctgg gctcttggaa tcatggagtg tagctacaca taaagaagct cccttgtcaa ggacatgaca 240 tcatgtttta catcttggtc cttttcctgc cacctgtctt ccccagaagg cctctgcaac 300 cggttttttg tcagctcaag ttgtagacca tcaaacctgt gcttaaacca gcgatgagct 360 tcttccagat tagctgttat ctgttctgat tccacactgg cttctttcag cgtattctct 420 gntgcctctt tacatttctt caggtgtctg acagtttctt ccaattcctg gcaccgattc 480 tctacttctg ncttattttc cgtctgcttc taaggtgcca gctcttgctg gttattccga 540 ctgaggcatc atattggctc ttagccacat ttgnatcttt tctggaggta agcattn 597

<210> 6234

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6234

acagagtete geactgtege ecaggetgga gtgcagtggt gtgatetegg etcaetgeaa 60 cetttacete etgtgtteat gecattetee tgeeteagee teeegagtag etgggaetge 120 aggeatgeae eaceaegett ggetgatttt tgtaetttta gtagagaeag ggttteacea 180 tgttggeeag getggteteg ageteetgae etcaagtgat ecacetgett tggeeteea 240 aaatgetggg attacaggea tgageeacea tacetggeet etttttttt tttttttt 300 agatagaatt teaetetgte acceaggetg gagtgtagtg geatgatete ageteaetge 360

| aacctccacc | tgccaggttc | aagagattct | ccttcctcag | cttctcaagt | agctgggact | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| acagttgtgc | aagtaccatg | cctgggtaat | ttttgnattc | ttgagtagag | ataggatttt | 480 |
| gccatgttgc | ccacctggct | tgaactctga | cttangcaac | canccacnta | gcttccaaag | 540 |
| gctggataca | gctgaccatg | gatctttaac | atgccaaagn | tnt | | 583 |

<210> 6235

<211> 587

<212> DNA

<213> Homo sapiens

<400> 6235

| aacgttaaa | t cgattttatt | taaagccata | aataaataag | ccaattaacg | ctcaagtctg | 60 |
|-----------|--------------|------------|------------|------------|------------|-----|
| agagggctg | c agtctttta | acaataccat | agtccaaaaa | gactaatact | tattgctgat | 120 |
| tcagctcac | a atattacccc | tttccagaca | acagcacatt | caaatgttca | agaaaacatt | 180 |
| ttatgggca | c cttttatggg | catttgagat | tcacagagca | atgggccatg | gccctgccct | 240 |
| caaggaact | t acaatgtagc | tggagagaca | caaaacatcc | aaaacagaca | tgaggggctg | 300 |
| gctctacct | c cacacctcta | tctgaacaaa | aacgattact | ggcttaagtc | ctcgtgttgt | 360 |
| aacgcatga | g ccacaggaat | atcttagcaa | gtacgcactt | tatcaagttt | caatttgcat | 420 |
| gtcaaaaca | a aagttttat | gttggtcatt | tatatttgna | ttcactcaga | tttccctcaa | 480 |
| tcaaattaa | a agagaaggcc | taattncaag | ccactgnacc | ataatggttg | ctggcctcga | 540 |
| tgaaaggat | a cttggtcatg | nccaaaaatt | ttcccaggtc | cncattt | | 587 |

<210> 6236

<211> 574

<212> DNA

<213> Homo sapiens

<400> 6236

cttaaatatg tctttttta aatgtttgca agaaactcta agggctaagg aaatgcactg 60

| cattatgatc | tgggctcctt | agagtacaaa | cctcaccagg | cttaagcatc | atccataaga | 120 |
|------------|------------|------------|------------|------------|------------|-----|
| aatggtggat | tacttaatga | cttataagta | aaacagtcat | taaatgatcc | tttcatactt | 180 |
| taatcctctt | atgcagagac | tgagatactt | ccatacattc | caatatctgc | aactttggtt | 240 |
| ctattaaagt | atttgataaa | agcaaaacaa | ttttgtgacc | acagaactct | atggaacttt | 300 |
| ttttcctttt | aaagtgtcag | gtgaacctag | cgtgataagg | caatgttgcc | tacatatccg | 360 |
| cgacccagca | caggagggac | agcacagaca | gggcatgttc | cagctcacca | ttgntgnata | 420 |
| atactgctcc | caccaggggt | aacactgntt | atgttccctg | gaccctacat | çtattcgtac | 480 |
| ctgaaacata | atttgnataa | aatatgatgg | ttctttagaa | atatnttagt | tttttaataa | 540 |
| actggcnnat | gaaaaaangg | nttcnaattg | ggaa | | • | 574 |

<210> 6237

<211> 165

<212> DNA

<213> Homo sapiens

<400> 6237

| gagatggagt | ttagctcttg | ttcccaggct | ggagtgcaat | ggcgcaatct | cggctcaccg | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| caagttcctg | cctcagcctc | ccgcgtagct | gggatcacag | gcatgtgcca | ccacgcccgg | 120 |
| ccaattttgt | atttttagca | gagacngngt | tnntncangc | tganc | | 165 |

<210> 6238

<211> 597

<212> DNA

<213> Homo sapiens

<400> 6238

aaaactttca gtgttttatt tttgactgca gctgtttaca gaaatatagt tgcgagtata 60 caaatgttcc aatagaagca aaatatcttt ttaatattta acaagttatc acagatagct 120 aaaaacatag atgcaaatga aattccccca gagaacaaac tgaaaatatc tggtatcagt 180

gctctgaaat cccaactatg aaagccatat acacaaaaat gtaaccctta tatcattgca 240 ggacaatgga agaaggcagt tcagtggttg atcagtgtgc tcaagcaaat aaaattaaat 300 aaaaattaaa aatggcagaa tggtagctaa accacttgag aacaggttaa tgaaattatt 360 ggtactatac ttaaaacatt aagtaaaaga agtgaatgaa actcatttaa aggttgncaa 420 aaaattagca actacttgga gcttatcaat taaaanggaa ccangntagc ngaccccntc 480 ntagatccaa agaaatttga tccaggtcac tggaatcagc tgnaactctc aaggcccatg 540 acttaatgcc ggagttttta cgggccccna agttgattcc aggccacttt tnaaagg 597

<210> 6239

<211> 599

<212> DNA

<213> Homo sapiens

. <400> 6239

acaacaggta aaaaaacata caacagaaac gcttttataa gatacaatta gtaatacaaa 60 tataaaatct tctaaacaat cactggtatt gttctactac taactataac acagtggcat 120 taacaatttg tcccactttt tatactcatt ctgcttatta gtttaaaact gactggtcac 180 agactgattt tgggaaccag ctggcaaaat cacaacttca ttttggtaat gaataactat. 240 agattttcaa gagcttagaa agattttttg gaatataatt tcctaagtat gaaatatgaa 300 360 agttaatatg ataaatgaat gacaaattag tatactattt aaattttagt taaatattct ggaaaaactg tttcacttgc ttggtgatcc acagagcacc cacaaagtta gcttttaaat 420 ttggaagttt aaaatcatga aggaaatatt ttaaatagaa aagctcacat cttncatata 480 aatgggttaa aaaatntaaa cttattggac ctaatctatc agaattggtt tggttggtta 540 ccaggggtta aggctggaag aatggttntc tttaccaaaa aantaggaaa aaatctggt 599

<210> 6240

<211> 609

<212> DNA

<213> Homo sapiens

<400> 6240

60 aagagatggg gtcttgctat gttgcccgga ctgggactta aactcctggg ctcaagcaat cctcctgtct cagcctccca aacagttagg actacaggtg cacgccacca cactcagcta 120 atctttttat ttttatttta tttttttgtg gaggcagaat cttgctatgt tgctcaggct 180 ggtcttgaac tcctgggctc aggcaatcct cctatctcgg cctcccaaag tgttgagatc 240 300 traggraage ggcaccatgt etggetgate tgtetteaet catacettaa caccttttee 360 tctgccaggc gacagtcttt tgagaaaagc aactatacta ccaattctgg accccttgaa 420 agatecagea geacacacet tgggtgetea agaaatatge gttaatttga attteaaace 480 ctatcacaat agctgctaca gtttactgac gggctactct ggctggggcc ctggacanga 540 atgggeetet tactecatta ateettaace ettacettat gangnangna gtataatgee 600 attttacaga agganggaac tgcttaaaaa ctggtanggg cattgcccaa ggtacactgg ttgtnaaag 609

<210> 6241

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

<400> 6241

60 agaaaaattc cactttaatt aaactgttca atctggattt ttttcccccg atactaactg 120 aaattaaaaa tagaaatcaa tttctgcgac ctttcaaggc agtctttgaa atgtcaaggt 180 tttaaaaatt attttacagc aggaatttac atataaatac actctgtaca atgcgttaac 240 tgaacaatca ctgggcttcc atcatggagg agaaatgatt ctaggacgag ccagggcagc 300 attcaattac tgccttctta gtggaagact tttcagccgt ctcagcagct cctggggcga cacgtctgcg gtttcctcgt cactctggct gtcgctgctg tcggaactct cggagctact 360 420 actiticist ggttttttat tettitigett geettigggt tigigettee tgngttettt 480 tettetette tteegetgge tettettgge etgggettge ttggtetttt atgttetett 540 ttgaggacct caagggcttg acgagcattg ggcanaaacg gaggaaccnc ggccgacttt

| ctnttnacna | tcngatcttt | ngatcggaag | gag | | | 573 |
|------------|------------|-------------|------------|------------|------------|-----|
| <210> 6242 | | | | | | |
| <211> 442 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6242 | : | | | | | |
| ggccagtgtc | tgacctttat | taagaggtga | ggtggggaga | gggcccgcca | gggtgcccac | 60 |
| tccctcttgg | tgacccccc | atctggagtt | aaggctccaa | gcagcaagtg | acagaggagg | 120 |
| gtgcctggct | ccagcagcct | gggcatggcg | gcgactcccc | caaaaacacc | ccagctgggt | 180 |
| gggtgcctgg | gggcctaggt | gaggctggtg | ttggagctgc | tggtagcact | gcctcgcttt | 240 |
| tgcaggcagc | gcacagcact | ggggacctgc | aggcctgtcg | tcacctggaa | gctgccacac | 300 |
| cataccgtga | aagcaggcag | cagcggctgt | gtgaacctgg | tcttgaaagt | gtgcagcact | 360 |
| tgtttggtgc | gggcattgta | gaaggacagg | aggccttggn | ggangtacag | ngcacaccca | 420 |
| ggcagtcngg | cancgnggnc | gt | | . • | | 442 |
| | | | | | | |
| <210> 6243 | | | | • | | |
| <211> 589 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | · | |
| <400> 6243 | | | | | | |
| ggctttttat | ccaggttata | ttttaatatc | tggagtttta | atccagcata | caaaaatcac | 60 |
| cagtatacat | ctattaagtt | aactgcagta | ttatttcacc | atcaccattt | acatgtactt | 120 |
| ttcaggtatc | agagacttag | tgctttaagt. | agcaaattac | ctaaattatg | aacacatatt | 180 |
| tccaaaaaca | aaatcaagct | cataattacc | aagtatatat | gtacagtgca | gattaaaaaa | 240 |
| aaactgaatt | agcacatatt | tctcttttct | aaagctccta | tgaagaactt | acactcttct | 300 |
| gcactaccaa | tctattctgt | acatttaaaa | taacatttgt | tttgatttaa | agtcaaaaat | 360 |

| ataaaggctt | aaatttttgt | gagactaacc | cataaaaaag | gactccaatt | ttaaaccaat | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| ccctgaaacc | aaagcattca | aatatttgaa | tattagttca | atatttctac | atagcacgat | 480 |
| aaggattttc | aggtacttca | agtittggct | ttatttttaa | taatgggaat | gggctacaat | 540 |
| taccattaac | aattattcaa | gtattttang | ggccttacat | atcattacc | | 589 |

<210> 6244

<211> 596

<212> DNA

<213> Homo sapiens

<400> 6244

| gatttagtta | catcattctt | ttcttctcta | ctttctcttc | ctgaaaaaact | cttccttaca | 60 |
|------------|------------|-------------|------------|-------------|------------|-----|
| taaacaaatt | catactggag | atatatgtca | gaaaacattc | agcctgagta | aactgaacgc | 120 |
| tctgtacaga | aaacaacaga | acaaaacaga | acttcaacag | taacactggc | gtggcataat | 180 |
| ataagccacg | caaaatgctt | ccaaatccat | tatctcttct | gagtttcatc | ttgtgaggtt | 240 |
| tgaagggtac | actgattgta | cttaaaaaacc | taaggcacag | agaaggttaa | ataacatgcc | 300 |
| tgagttacta | aaaagagaat | ccagatctag | ttcaaaatct | ggtcttcttt | tcactatacc | 360 |
| aataacatct | gactggaggc | aagatgagag | agcaatgagt | aagcactaat | gttatttcag | 420 |
| ggccttaaaa | cccttatata | ttatgaacta | ctcttcatta | gaaaaaagta | tgcattttct | 480 |
| taaagcataa | atcacaatat | atattttaa | agggttccca | agtcttttct | acttcataca | 540 |
| aatgaagttg | gctgnatttt | aaaggcttnc | cctttgggaa | aaccggaccc | aaaaaa | 596 |

<210> 6245

<211> 511

<212> DNA

<213> Homo sapiens

<400> 6245

ganacggagt ttcgctntgt cgcccaggcc ggactgngga ctgcagnggc gcaatctcgg 60

ntnactgcaa gctccgnttc ccgggttcac gccattctcc tgcctnagcc tcccgagtag 120 ccgggactan aggcgccgc cactgcgccc ggctaatttt ttgtattttt agtanaggcg 180 gggtttcacc ttgttagcca ggacggtctc aatctcctga cctcctgatc cacccgcctn 240 ggcctcccaa agngctggga ttacaggcgt gagccaccgc gcccggccgg cttctagttt 300 ttatcatttc tgtttaaaag ctaacagtct cattgttgca actgtgaagg caactggtga 360 attaacgatg ggacacatat tetttgcact accatcaggt anaggatatt ttecetgetg 420 naattttgag caggcccgg gacttggttt tnaangnaac attggataaa tangctggtt 480 caagttttat gcncaggctt taanaggcct a 511

<210> 6246

<211> 566

<212> DNA

<213> Homo şapiens

<400> 6246

agagagacag ggtctcactt tgttgcccag gctattttct ggatgtctat taaaaaaaaa 60 ttagtcctgc acagngttct anaaagggtt tttcttttca naatatccat attctccaag 120 tagcaagtta gaatataagg aatatttgcc attaaacctt tctgttanaa atgtaaacat 180 gaaattgeet aatatagaee tateteanat getaaataga attgnttata acaeetttgg 240 aatataatta tgngagctac acttaaccat ctggcatttt gcttcctgcg gacaatttgc 300 aatagcatag aaaaatattt tgnttgngta tttcttatca aacagatatg ctaaagttct 360 gtttagagag taatagcatt ttattctaac ttttaaaata aggnagccat ttgcagcagc 420 ttgatatata agtaaacaaa aatttttaat attaataaaa cactagcaca tncnctgaag 480 catctaagaa attcaaaatt tnaaacnctt nccagtaatg ncctttgagn gggaccattt 540 ggaataaagg cccttgaaaa attgga 566

<210> 6247

<211> 527

<212> DNA

<213> Homo sapiens

<400> 6247

ccaatgaaag tctattnatt tgctcgnaat gagacanaac gctacaatct gttnaacact 60 gggctggaca ctgcagngat taggggcagg tgtggggcag ggnggggcct ttgancccga 120 180 ggacaaatgt ccatggcana nccttccaaa aaactcgtcc nttaccctgn ggggcaaaaa 240 tagaaatcac atgatcgcca ctgattcnca gnggaaaggg cnctgagctg ggcccggcag 300 gcaggcagcc tcagcanana ttcaggcagt cagcatggng cggccctccc gccagcactg 360 tcaggtcanc anaggttcaa gcagtcagca tggcgcggcc ctcctgccag caccgtcaag 420 gagggggatg ctgctcctgc ctggggcctg cctttattnt gagggcccct ggccccaant gggtttaana agggacctng ggcttgccca agaaccttga aanccctggg ttggccantt 480 527 ttggaggcga aaggccacag gtccntgaac cccnttgcca aggtttt

<210> 6248

<211> 548

<212> DNA

<213> Homo sapiens

<400> 6248

ggctaatgac ttattacttg ctgtttatat ttattttgga ctatggaaat gatgctagac 60 aaaaagcaaa gttgagtgat tttcttattt aagttcaaag tgggtcgtaa aacagcagag 120 acaacttgca atatcaacaa tgcatttggc ccaggaactg ctaatgaacg tacagtgcag 180 tggtggttca agaagttttg caaaagatac cagagccttg aggatgagga gtgtagtggc 240 aggccactgg aagttgacaa caaccaattg agagcaatca ttgaagcaga ttgatcctct 300 tacaattaca tgagaagttg ctgaagaact caacgtaaga actcaacgtc aaccattcca 360 cagttgttca gtatttgaag caaattgaaa aggtgaaaaa gctcgataag tgggtgcctt 420 480 accagctgag ccaaaattta aaaaaacccc ggttttgnaa tggtggcntc tcttaatctt 540 cacaaccacc gaaccnttnt taatcggact gtgaagggca ncaaggacta gattttatnt 548 gacangca

| <210> 6249 | | | | | | |
|------------|------------|------------|------------|------------|------------|----|
| <211> 545 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | • | | | | | |
| <400> 6249 | | | | | | |
| atttctggaa | tggctaattt | ttatttaatt | ctgtaagcct | aaggtaaaaa | gcataggcag | 6 |
| taacttttac | tagtcaataa | aaagcagttc | taccaatcca | ctggtaatta | atacactaaa | 12 |
| cagagttgga | aagcatttta | ctgaaagcaa | aatatttaga | gaaaatagac | atttatacaa | 18 |
| aattataaaa | tgcttgtaat | aagaataagt | gcatttcaag | gaaagcacaa | acttaattta | 24 |
| tagagccagt | taaagcttta | aaaaatttaa | gtggaaattg | aaatatgcaa | aaatgtataa | 30 |
| acattctaca | aaagatggtc | attcttttcc | tgagtatact | aaagctatga | aacgtaaggt | 36 |
| gacaaaagga | aggtagaagc | ttgggaactc | tttctcaagg | gcattttctt | tctacacact | 42 |
| gnttcccttc | ttcttcatat | tcttgcttgg | naatcncatt | tggtggaaag | gtncccaaga | 48 |
| ggctanaatg | ganccgccaa | tccttgagct | aacctccgtc | cctgtggatt | attgcaatca | 54 |
| atttn | | , | | | • | 54 |
| | | | | | | |
| <210> 6250 | | | | | | 1 |
| <211> 542 | | | | | | |
| <212> DNA | | | • | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6250 | | | | | | |
| gccatgacat | ntagaagcat | ttattttatg | caaaaaactt | aaatatgatt | atgngtacnc | 6 |
| ataaagngca | cacattacct | atgctgaaca | atgccaagaa | acataatata | ttgatgcaac | 12 |
| agttttctaa | aataaacata | aaaatgagcc | cagaccatca | gacaaaagca | aaacacttat | 18 |
| ttccaaatag | cacaatgctg | aaaattgata | gcaatcctaa | aacacctcca | actttcctta | 24 |

aaagctgcca aagtccaact atttttaaa aattgatttt ttttacatta ataaaaatct 300

| ggngacaaac | attataaaac | caaatgctgg | acagtcttta | ctcctttaaa | attccaaata | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| ttccaacata | atcacaggag | taaaaaccat | tttaaagnga | tatgctttat | gaaacaaacn | 420 |
| acaatatgga | cntttattgn | aaattatntt | aaactaaaat | gggggggaat | ccaaatntgg | 480 |
| accnggttac | ctactggcaa | atcatnaatt | taaattttct | cacttggata | aaaatcanaa | 540 |
| gg | | | | | | 542 |

<210> 6251

<211> 493

<212> DNA

<213> Homo sapiens

<400> 6251

| gttacacgtc | tctgatttta | atgagtcaat | ctcaaggcaa | agctataacc | ttttccatgt | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gaaccttaaa | acggaaatcc | tacgtgtttg | gctcagctac | catagacatg | tcttgcccca | 120 |
| nagttccagt | gtatttttca | cctttagttt | cttggctcct | ctccgcctct | acaccagcct | 180 |
| catatccaca | cgggatgctc | tctgctgagt | attgtcttga | gttagttctc | cctctcatgt | 240 |
| tctggctgat | gctactcatg | gtcatagtat | cacctgacgg | ggaaggagta | tgctatgaag | 300 |
| gtgaaaaatg | ctaccatagc | attttgtttg | tttataaaat | gtcaggccct | ggttccattt | 360 |
| ttccccctc | ttatatctaa | attttgaaac | cactggcctn | taacaagtct | gtantaggct | 420 |
| taagttcaan | gggccatttg | gttctttngg | gnctggttgg | gaanccaatt | ganggaaaag | 480 |
| tttgctaaaa | aaa | | | | | 493 |

<210> 6252

<211> 535

<212> DNA

<213≻ Homo sapiens

<400> 6252

gagacggagt ctcactctgt tgccaggctg gagtgcagtg gcgcgatctc ggctcactgc 60

aacctctgcc tcccgggttc aagcaattct cctgcctcac cctcccgagt agctgggact 120 acaggagtgc gccaccatgc ccagctaatt tttgtatttt tttttttag tagagacagg 180 gtttcaccat gctggccagg atggtcttga tatcttgacc ttgtgatctg cccgccttgg 240 cctcccaaag tgctgggatt acaggcgtga gccaccgcga caggcccccc tcatctttat 300 ccttaactaa tgaggggtgt atttgtttgn tttgnttttt tagatggagt ctcactctgt 360 cgcccaggct ggagtgcagt ggcgcaatct cggctcactg naaccttcac cttctgggtt 420 caagegatte ttetggetta neettetgag taactnggaa tgeageette gecacangee 480 535 ccgntgattt tggatggtta agnaaaaang gggtttacca tgttggcagg ctggn

<210> 6253

<211> 503

<212> DNA

<213> Homo sapiens

<400> 6253

cagtagcttt aggggtatga gtgatttttt ggttacatgg atgaacggta ccatggagaa 60 gtctagaatt ttagtgcacc caccacctgg acactatatc caataggtac tttttcatct ctcacctctc tcctgcttgc cagccttctg agtctccaat gtacattata ccactctgta 180 tgcccttgca tatccataag cttagaaacc acctgtaaat gagaacatgt tggatttaga 240 ttttgattcc agaattactt cacttaggat aatagcctcc agttccatcc cagttgctgc 300 aaaagacatt atttcattct tttttatggc tgagtagtat tctacaatat acatatgcca 360 cattitetti atetaetett tggttgatgg gtatttaggt tgatteegta teattaeaat 420 tgngaactgn gctgngaaaa atatggcttt tttaaaaaaat gggnttccct ttcattnggg 480 aanaacctca ntaggggaat tca 503

<210> 6254 .

<211> 547

<212> DNA

<213> Homo sapiens

<400> 6254

gtgattcaca gtgcactgat tttatttaca gatcaaaagc cacttaaata atctgcagac 60 acaagtgctg tccagggcag aagcctgggg tccaaatcag ccttatccct cctcatgccc 120 acagtcagcc caatgctgtc tccgttccat gggccagcac aggcaggcgc cactctgctg 180 acatgaggac ctggggtagc tcagacattt gactacccaa gcccagaaag gagctgggtc 240 300 acaacagctg tagaagtagg ggtttggctt ctggcccaga tccacgccct tgtcctctgt 360 420 catcacctgg aaggcagcca cactgacgta atcctctgcc actttctgga agagctcgtc 480 cacactntgg cctgncttgc tggatggttc aaagagctga actttgatat ctgnnaagaa gaatggctta aggcctatac cctggnaatt ggttaaccgg ncaaaaggga nggctancag 540 547 ttaagga

<210> 6255

<211> 541

<212> DNA

<213> Homo sapiens

<400> 6255

gttttttgag acagaatett gttctgttge ecaggetgga gtgcagtagt gtgatettgg 60. 120 ctcactgcaa cctccacttc ccgggtttca agcaattctc ctgcctcagc ctcctgagta 180 gctgggatta caggtaccca ccaccatgcc tggctaattt ttgtattgtt tgtagagagg 240 ggggtttcac catgttggcc aggctggtct tgaactcctg atctcaagtg atctgccctc 300 ctcggcctcc caaagtgctg ggattacagg tgtgagccac cacaccccgc cctgtctggc 360 ctttttatgt ggtttaagtt ccttcaccat ctgactggcc acacacatgg gcagagcttg 420 gaagggagag gcagaggcag agactcagct catggaaagg gctgggctgc ctgggtctga agcccagctn tactaccagc tntgnnctta tnggcaggtc acaaaccttt tttaacttgg 480 540 ggttttttgg cnttgacatt agccaagcca nttgggctgg ttggaagcat gaggctgacc 541 n

| <210> | 6256 | |
|-------|------|---------|
| <211> | 470 | |
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 6256

ggagacagag tctagctctg tcacccaggc tggaatgcaa tcagtgacat gatcttggtt 60 cactgcaatc gcgccactgc actgcagcct aggggacaga gagcaagact ccatctcaaa 120 aaacaaaaac aaaaacaaaa acaaaccaga attggctttg ttattttctt aaccctagac 180 240 agaataggtg gtcaaaggaa aagggaggag agataccaga taggtttgca aatatggtaa agttcattat tacccaactg ctcctttgaa atctaaaagc gttctttttt ctccaggctg 300 acactggcca catccacatg aagaatgtaa gcacatcaat cagtacagat gccagctgag 360 ccctgtttct cctttttaaa ccaaatataa aatttgaagt cctnccacaa ccatntgaat 420 gggcctnccc tttngncaag gnacttttaa aattaaacnt gaaaggttgg 470

<210> 6257

<211> 429

<212> DNA

<213> Homo sapiens

<400> 6257

gtaagaaata aatttattt ttaaataaat caccccattt caggtattct gttgtaagta 60 acagcaaaca gactaagaca agtaggtaaa tcattatgaa gagaactatc tagtagtatt 120 tttcaaaaca ttgtcctgaa catataccaa ggtagatcgc attctgggcc ataaaacata 180 ccttaataag tttaaaataa tagaaatcat acaatgtatg ccctcaggcc gcagtggaat 240 taaactagaa accgatgaca gaaaaagagc tgaaaaatcc caaaatattt ggatagtcaa 300 caatacattt ctaaataata cataggtcaa agaacaaata tcgagagaaa taaaaaagaa 360 tattttaagc taaataaac tgaaaatact acctatcaaa atctgggana tgccncnaaa 420

| ggtagninii | | | | | · · | 429 |
|------------|------------|------------|------------|------------|-------------|-----|
| <210> 6258 | | | - | | | |
| ⟨211⟩ 537 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | • | | | |
| | | | | | | |
| <400> 6258 | | | | | | |
| aaatttttc | atctcaaaga | gttctcagtc | cccaccccac | acgaggtacc | gtgaaggggc | 60 |
| actaaagtac | attttgatgt | agggggtaga | gcttaaaggt | gctgtccaag | ctaagaatca | 120 |
| agatgatgct | gtttaaaaaa | gaaaggcaat | tccttctacc | tccatctctg | gagtcagctg | 180 |
| agggagggca | gtgaactaga | ctctccccag | aggattgtcc | taactcttaa | ctttagagaa | 240 |
| aactgtgtaa | ggacctgcac | atatagaatc | atttatttgt | ccaaaatagc | aaaaataggc | 300 |
| ctatttcacc | cttaagaatt | tgcaaatctg | atcagtcatg | atcataaaaa | tgtgaatgga | 360 |
| ttccagatgc | aatccatgtg | ggcatgctct | gtggaactag | ctatgcatct | tcagcttgaa | 420 |
| tgaacatgaa | gctggtcatt | ttcattaaaa | cctgnntttn | aaacttncct | taattaaatt | 480 |
| ccccntggan | canttaaatc | ttttcttaca | ataattcctt | tacattaaaa | ggtatct | 537 |
| | | | - | | | |
| <210> 6259 | | | • | | • | ` |
| <211> 532 | | | | | | |
| <212> DNA | | | · | , | | |
| <213> Homo | sapiens | • | | • | • | |
| | | | | • | | |
| <400> 6259 | | | | | | 2.0 |
| | tttctttttc | | | | | 60 |
| | gctcactgca | | | | | 120 |
| | | | | | tttgtatttt. | 180 |
| tagcagagaa | ggggtttcac | tgcattagcc | aggatgatct | cgatctcctg | acctcaagtg | 240 |

atccgcccgc ctcggcctcc caaagtgctg ggattacagg cgtgagccac cgcgcccggt 300

caatttctaa ggctccatta gggctaaggt tcatgtatcc atggtgaagt atagaagaac 360 tcagaatcgt tccaaacata atgggcttgg agtaatggag aactccaagg gcaggaggta 420 accattaaag aggccntnat ggaaanggga aggagcaaca ttnccactaa aagccttggt 480 tnaagtttgg ctttgcccct acagattttg aaccctgagn aagtacttac ct 532

<210> 6260

<211> 524

<212> DNA

<213> Homo sapiens

<400> 6260

cccagttaat ttttgtattc ttcctanaga cggggtttca ccatgttact caggatggtc 60 tcaaactcct gatctcagat gatccgcacg cctccacctc ccaaagtgct gggattacag 120 gcgtgagcca ccatgctcgg cctaggtgac ttttcatggg gagataacac acaggcatgg 180 tgagcagcgt ggcanaggac ctgtgtgcag ggccctgtct cccgccgggg aatccttcat 240 300 ctgggaaatc tccgntgcgg gacagggatg ctgtgtcgtc aggacgcagc gtctntccag ggcacccggg cctcctctga gcctctttgc gctctttggc tgcgtgcttt ctttcccaaa 360 420 cagtgcagac atggaggaga cagaaggtga aaatggtttc tgagcccctc aaccgccttt 480 ggggacacca acctngnggt ntttaaaacc aagcnttcct tgaanccgga aaaggaggag 524 caccegggtn ttggccccaa nggaccacce tgaatcacaa ageg

<210> 6261

⟨211⟩ 545

<212> DNA

<213> Homo sapiens

<400> 6261

ccaaactgca aattgcccca agttttattt gtagtccata caaaagggaa aaaaaattaa 60 ggttttctaa caccacctac ttggggagat ggggaagtgg gactgtgccg ctcaccatca 120

gctagaacat tagtggtcag cagggacttg gatacatacc aactgactgt cccaacagga 180 actcagtctc aacagtctac agagggacag tcagggtacc ctggactgct ggcacagctt 240 ggcacatagg aaatggttaa gctgaccctt tcctggcctc cttcccatct aaaaagaaaa 300 aggegeegge gaceteaget geaggttget tecceateea gacgacetta aatategege 360 420 acaaaaataa aagggagcca ggaaaaaaat naaaacataa aagaaattcc cattctgggg 480 aaaccggaag caaggtnaaa ggggaacccg cagaatttan anccagtanc aanatttgtt 540 gctgaggena aggancaaag taggttactg gccgaacact taacaggatc atctcctggg 545 gaagg

<210> 6262

<211> 510

<212> DNA

<213> Homo sapiens

<400> 6262

gattttccat ttttttatt ctagtactac agtttacagc cattagatga taaacaataa 60 aacatcactt tttagaaaat ccatatccaa agccaacctc aagtacacag taatttaagt 120 taaatccact ttttaaaaaa atttcctaat aggtttggta cttaattttt ctgttttaca 180 cacataactg gaacttgtaa atgggcaact gccttcttat atgtggaatt atagttttt 240 300 cttgtccttt cccccaaacc acatatatta aatcatggga cattatatat caaccctcac ctaggctttg ggttattcta taaggaaaag cctttgtcag agtttggctg tctccttcct 360 420 ttcccattcc cacaaaagat gtgtgactaa gtggacaaag aactcagcac tgggcctgnt taagactntg gccntattct caaaaaaatt ttgangggag gttcctctaa anatcttata 480 510 actttgccct ttngagaanc atgttttaaa

<210> 6263

<211> 515

<212> DNA

<213> Homo sapiens

<400> 6263

gagaatgagt ttcactcgac acccaggctg gagtgcagtg gtgcgatctt ggctcactgc 60 aacctctgcc tcccaggttc aagcgattat cctgcctcag cctcctgagc agctgggact 120 acaaatgtgc accaccacat ctggctaatt ttttttttt tttttttgt atttttagta 180 240 gagacggggt ttcaccaagt tggcctggct ggtctcgaac acctgacctc aattgatcca 300 cctgcctcgg cctcccaaag tattataggc atgagccact gagcccggcc ttttttgttt tttgtttttt taaaggcagg gttttgctct gttgcccagg ctggagtgca gtggtgtat 360 cacagateae tgeageettg accteteetg gteteaageg atcetneeae ettageettn 420 anaacagctg ggaccncagg ngggtggnac catgcccagg aaatttttt ggatatttgg 480 aaaaggcagg gtttcccaan gttgccnggg ctggg 515

<210> 6264

<211> 460

<212> DNA

<213> Homo sapiens

<400> 6264

gagacagagt ctcgctctgt tgcccaggct ggagtgcagt ggcttgatct cggctcagcg 60 caageteege ecceeggatt catgecatte ttetgeetea geeteetgag tagetgggae 120 tacaggcacc caccaccaca cccggctagt ttttttgtat ttttttagta gagacggggt 180 ttcacagtgt tcaccaggat ggtctcgatc tcctgacccc gtgatctgcc tgccttggcc 240 tccgaagtgc tgggattaca ggcgtgagcc accgcacctg gccaagacca atttttaaaa 300 tttaagacac ttcaaagatg caaaataatt tcagaactga ttcctggaaa cttgtaattt 360 taatattaaa gatagttetg tttgtatett teeatggata actaaaaatn acacaaaatg 420 gaaacagaaa tgcccattct tgntttaacn nnggaacnnt 460

<210> 6265

<211> 546

<212> DNA

<213> Homo sapiens

<400> 6265

| gttatgatcc | ctttaacatc | caatgcatgg | atgtatagca | tttatggtaa | tggtacttca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| atcatgaatc | aggccaggca | ctgtggctca | cgcctgtagt | cccaatactt | tgggaggcca | 120 |
| aggcaagagg | atcacttgag | ctcacgggag | ttcaaccagc | ctgggcaaca | aagtgagata | 180 |
| cccacctcca | caaaaaattt | aaaaaactag | ccaggcacag | tgatgtgtgc | ctgcggtccc | 240 |
| agctacttgg | gaggctgacg | caggagaacc | gctcgagccc | aggaattcaa | ggctgcagtg | 300 |
| agctttgatt | gtgccactgc | actccagcct | gggagacaga | gcaagatcct | gtctcacaaa | 360 |
| aaaaaagaaa | aaaagaaaga | aaaagaaaag | tagtgaatca | tgcaataagt | tgtttaatga | 420 |
| acatgcccct | gncagccaca | gacttcacaa | gggccaggga | attgntttgn | ttttcccaan | 480 |
| tttgggcttg | gttnangaat | tggaacntcc | agacttttgt | tgcataatgg | agcaaatcaa | 540 |
| tcttcc | | | | | | 546 |

<210> 6266

<211> 368

<212> DNA

<213> Homo sapiens

<400> 6266

| agntcttcct | ttcttcttcc | ttcttctttc | ttcctcttct | tccttctttt | ctttggcttg | 60 |
|------------|------------|------------|------------|------------|------------|------|
| ggncttcttc | ttccttantn | ntcttcctct | nttctttctt | ccctctntct | tctcttttc | .120 |
| ttttttcttt | nctttcttcc | tcttcttcta | ttggttcttt | tttcttcttt | cttccttctt | 180 |
| ctcctctttc | ttctccttct | tcctccttcn | ccttcttttc | ttctnccttc | tccttggtct | 240 |
| ccttcttcct | tattcttcct | tcttctcctt | cttcctcctc | cttcctcttt | tcttcttcct | 300 |
| tntcttcttc | ttccttcttc | ttntccttcn | ancttcttgn | ctctncntct | tctctccttc | 360 |
| tcctaggg | | | | | | 368 |

| <213> | Homo | sapiens |
|-------|------|---------|
| <212> | DNA | |
| <211> | 455 | |
| <210> | 6267 | |

<400> 6267

| ggaga | aattg | taaacctgat | tctaaactgt | atatagaaac | tcaaaagaac | tagaatagcc | 60 |
|-------|-------|------------|------------|------------|------------|------------|-----|
| aaagc | aaact | tcggaggaaa | acaaagaaaa | tgttgtgtga | cttataattt | atgacticaa | 120 |
| gaact | ccaaa | gcaagagaaa | atgttagtcg | cataaaaatc | tatgaataca | tcaaagaaac | 180 |
| agaaa | ataga | gccaaaatag | attaaattta | aatagtcatt | tgatttattt | ttttttacat | 240 |
| aagtg | ccaat | gcaatctctt | gagaaacaga | aagtctatcc | cacaaatggt | gctggaacac | 300 |
| attga | tatcc | acttggaaaa | aaaaaaaaaa | gaactttgac | acctatctta | caccatatac | 360 |
| acaat | taatt | tagaaagaat | cgtagtccta | aaaataaaaa | tggaaaccat | naagcatntn | 420 |
| aaagc | naacn | ggngaattag | aggggaacnt | ttttt | | | 455 |

<210> 6268

<211> 567

<212> DNA

<213> Homo sapiens

<400> 6268

| aacattgtca | cacatcagtt | tattgagaaa | atcatgatgc | tatatgttaa | ttctcttcaa | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gtgattactt | ttcattatgt | cagatgagac | tccaaaaggc | catagccatg | aagttagaca | 120 |
| ctttcccata | ttttgttcag | gaacacaaaa | accaaatgca | aagaaatgtt | taagagaaca | 180 |
| tgaaattggc | ctcttccttc | ccccaaccaa | aggtagtcat | taacagtcag | gaaggacaaa | 240 |
| ctgaaacatg | taaaaagcaa | atatttttgc | tagattttat | tttcaaagtt | tcaaaccttt | 300 |
| ccaattttt | ttttattttt | taccccaaaa | aaggtatcaa | tacttttcat | tccactcttg | 360 |
| tcaactttag | ccaaagcctt | ctgagctgca | gtcattttgc | tatttttctt | ttcagtcttc | 420 |
| aaatctttag | tattaaactt | agtgtaatct | tctttgnttc | tacaggctca | tctgataact | 480 |

| ttattttctt | tgatggagga | tttggcaatg | angcttaang | gtctggaagc | ttaagtttta | 540 |
|------------------------|------------|------------|------------|-------------|------------|-----|
| aataagcatc | cctaaatctt | tngggng | | | • | 567 |
| | | | | | | |
| <210> 6269 | | | | | · | |
| <211> 566 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6269 | | • | | | | |
| ggcacttgct | caatctcttt | atttagtggc | acacatggaa | tgaatgaatt | agctcttact | 60 |
| tgcggcatac | ttaacaagtc | tgatcttgct | tatagaaatt | ggatcttaat | acttcattct | 120 |
| cagaatactt | caaaacgtaa | gccacagttt | ttctttcaag | gatgtgggaa | gcattcctca | 180 |
| ttcaaatctg | attaatggtt | ttataaagta | tgtacctcat | ttttattagc | cattatcttc | 240 |
| atgctggatt | ctaatattct | ttttaatggt | gatctgttca | ataaactgaa | ccctaatttc | 300 |
| cctacctcaa | caacataaaa | atgatgtaaa | gtggatcaaa | gtatgtaaca | agttaatatt | 360 |
| aaaaatgctt | cttcatatgg | tctttcacta | aaataatcaa | cgtaaaaata | atgtaaaaat | 420 |
| gtgtttttgc | ttgaagattt | agtgaacgtt | caaggaatca | caatttttga | gctttacatc | 480 |
| cagagtctat | actatgtgaa | aatactacag | ngcctcattt | aaaaagcncc | gtgattaaat | 540 |
| tncaaatcca | aatgccaaaa | tcaata | | | • 0 | 566 |
| | | • | | | | |
| <210> 6270 | • | | | | | |
| <211> 551 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | · |
| <400> 6270 | | | | | | |
| catctttgcc | ttttaatata | anattnggtt | tcatcatttc | tgagng taac | atatttnttn | 60 |
| taaaaataga | gctctctgct | tgtctgaaac | ttnttagcgt | tcactgggag | gtgaagggga | 120 |
| ataaggctga | ccgtaattct | ggggtgacgt | tgccagtttc | atagtcatag | ataaacttct | 180 |

nangggetee tggatgetea cageanggat gagtteattt caaateeatg gtaetgaana 240
ageatgacaa agegttean ggeeceatnt gtgeetggtg tggaeteetg aacgeattae 300
tgaecaaagg caateaatea cagegeegae eeeggeggg eegateegag ggeetnaeta 360
aaceateeaa teggtagtan egaegggegg tgtgtacaaa gggeagggae ttaateaaeg 420
caagettatg aceegeaett aetgggaatt eetegteat ggggaataat tgeaateee 480
gateeeatee gaatgggtt eaaenggtta eeeggetge eggetaaggt angeeaeett 540
acenatenat g

<210> 6271

⟨211⟩ 537

<212> DNA

<213> Homo sapiens

<400> 6271

aagtgttcgg tttttctttt aattatttac cagataaaaa agaaaaaaat agtgattgtt 60 tctcttcacc cccaacattt ccgtttacca aggtcgagtt ggagagaaat tcattgaaca 120 acgatttgtg ctcctggcct ggagcaaatt cttctcctct gctctacgcc acctcaggca 180 gcagggacag ggcaaagggc tccaggcaga aatcctggtg gctgggcagc agagtggcag 240 tgtggcgatc gettettete gecattgcca gagcatteag accetttéee gtetgteece 300 ctaccccaag tcccccagtc cctcaaagga ggcagggagt ggggactgca ggaagcagga 360 caggigacag ggiggccigg gcagcicccc acagaictgg cagaggggac aaccccigci 420 tctattgcac atcctggctc accccctgc ccgagcagta ngccacaaaa tgaaacactt 480 ttcaaantca gaaagcccgt gctttgtgcc agcttnanga ngggaagttn gttgntg 537

<210> 6272

<211> 512

<212> DNA

<213> Homo sapiens

<400> 6272

aagtetgtte acgtageetg ggaetggget ageettteag taaccatate agtateacae 60 aaagegaace ecagteteet etgagtette atteetetae ecagagaatg ggtttteete 120 tcagaacaag ctcaaagacc ttcctgactt ctgcagggga gggtgtcctc cctctcgtcc 180 cctcacatgg ctttctatca ctcccttgct cctgcaagcc tgcctcatgg aaccctcaga 240 ccaatctcca ttttgccaag gacggtgggg cccacctctg cctcttggag cagacctgc 300 agagttgete ttggeggeet caggeettee etggagtet etgeaetget gaettgtgea 360 420 gaateteate teagagettg caaatggeee caacaatgtg etggaatgta tatggatggg ggtgggctgg aaagtgctga gaacccaaca ttttcttaat nnntttttct ttncnttgag 480 512 acaagtttta ctttnttacc caggttggaa ng

<210> 6273

<211> 569

<212> DNA

<213> Homo sapiens

<400> 6273

caatttgccc tctacacttc ccaatttaga agaaactatc actagtttct tgggtattta 60 tatttgtcac taagtcactt taatgcatct tcaaatatgt gtaaaaaata gaactcttat 120 accaccatca accagacage atatattace aattaaataa gtgcccacta tttataaata 180 gtgcatgttt agggatcaat aaaaacatat ccttacacgt aaggacatat cctaatctta 240 300 tcataatatc tccaaactgc aaaagcatgt gctgggctgt tctctaccga ataccataaa 360 actgaatatt gttcaccact atggtcgatc tttctaactt taaagagtac acaactgaac 420 tcaattactc caaagatatg tgaaaacaca gaaaaatgac ccctgttaaa agagtaaacc tagcttttgn tttactttcc ttttatataa aaaaagatgt acagggttct cttctgangg 480 540 ccagtagtca atttagaggg gatacttcng aagctttttt tggtggtggt aattgggnac 569 ctttacttcc caagggnccc ttntaccan

<210> 6274

| <211> | 566 | |
|-------|------|---------|
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 6274

aaaccacaaa tacgtttatt cctctaaaaa cagtatacca tctttccaat tttcaaaatg 60 120 ttattatcaa tigicigcag attactcica tiaagcigat tittaaaaat cicagacaga gcagagcaat tcaccagcac catcatcaag tgagctacaa atctatcttt taccagagca 180 240 aggagacact taagatcaat tcaagagaat agctttcagt gttcatagaa ggggtactca cattcatttg tcacatattt caggccctca tacacccctt ttaaattgtc taactcctat 300 360 cccagtttct ttttatagtc taaaaacaag gaatcaccca agtaagatac tccttcagag 420 cactgctgaa aatggatcaa acgtgggaga tcccccagat ccctgttctc aagtgttaaa aatattttat attagcacat agaataccct tagaatatat tctggtatgg tctaaagaag 480 ttggggttcc ccttttgatg aggcttcaat tcttctgaga cctttcctgg atagncattt 540 ggtctattgn tttnacttct ctggnn 566

<210> 6275

<211> 556

<212> DNA

<213> Homo sapiens

<400> 6275

cagatcagga agttttattg ctgacatgca ggaagagtcc ccatgtagta caaaaatatg 60 tctttataca aactttttg tgactttttc cgtttcttta caataggact tctctcagaa 120 acccgtccat cctcaggaat ggtatactcg gcagccttga tcttgcggaa gagctcctgc 180 gggatgctgt cgtagaaggg gaactggcca tacagcatgg tgaagagcac cacgcccagg 240 gcccacatgt cactgggctt gccacggtac ggccggccgc tgagcacgtc gggactgatg 300 taggcagggc tccctctctg gtccttcagc aggtcccct cgctcaccag atgcttcccg 360 aggcaaaaat tggtgatggt tatccgatgg gcctcttgtt gagcaccatg ttccccagct 420

| tcaggctctg | tgcacgatat | ttttctggtg | caggccttca | ccacgcggac | cacgtntana | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| agattaccca | ggnttccttt | tgctgagcct | ttntcttgat | gactaatgct | tcaggttgat | 540 |
| aaggcaacgg | cttttc | | | | | 556 |
| | | | | | | |
| <210> 6276 | | | | | | • , |
| <211> 554 | | | | | | |
| <212> DNA | · | | | | | |
| <213> Homo | sapiens | | | | | |
| • | , | | | | · | - |
| <400> 6276 | | | | | | |
| gagacagagt | cttgccctgt | tgcccaggct | ggagtgcagt | ggcgcgatct | ccgctcactg | 60 |
| caagctccac | ctcccgggtt | cacgccattc | tcctacctca | gcctctcgag | tagctaggac | 120 |
| tacaggtgcc | caccactaca | cccggctaat | tttttgtatg | tttagtagag | acggggtttc | 180 |
| accatgttag | ccaggatggt | ctcgatctcc | aggatcagtt | tcttgagtct | tttctctttt | 240 |
| gcctcttagt | cagaatccta | agaacataac | caggaaacaa | atgaggcaag | caagatcctg | 300 |
| ctataaatca | aagaactact | agactcatga | aataatttta | aatgcgtgtt | aaccatgagt | 360 |
| gaaaactaga | aattgacagc | cccaattttt | ttttaagggc | agatggtact | ttacatcttg | 420 |
| gtcttaggca | taaaactatc | tgnaacaaat | gtctagggat | cgagtcatta | taaaagtcac | 480 |
| ttcatgcttn | aagtatttcn | aaacttggag | ctttnaaggg | aattggggtt | cacttattag | 540 |
| acaccagtgg | aatt | | | | | 554 |
| | <u>.</u> | | | | | |
| <210> 6277 | | | • | | | |
| <211> 556 | | | • | | | |
| <212> DNA | • | | | | | |
| (213) Homo | saniens | | | | • | |

<400> 6277

gaaaatggat tcaattttta ttaaataatg taaaggattt tcttggcact attcacattc 60 tcttgcctga gtaaaacaag ccgcgtttat ctgcattggt agcagaggga aagctactgg 120

agcaaacgct aagtgaatgg gttcccgtgc cgagggtgtc ctcattcttg ggctctgtca 180 ggcctcccct tgtctgcagg actggacagg ccaccctccc caggccctgc ccttgccgcg 240 agcgtgtcct tccatacaga caacagcctt gctgggtcac ctggaggagc tgcgctcttt 300 gctgacacag tcgtcctggg aggtggtgtc cccgtttccc accatgctgc acgtcctcct 360 420 cttcttcctg cggtgcactg tcccatcgcc ctcggatcca gactcgcact ctgagtcgga gtctgacgaa ctggagctgg aggagctgga agagtcgctg gagctgtcgg aagctatccc 480 tgnggacttc tgaangncaa cccaatcttg caaggctggc caattngggg ggctttgnnt 540 taaaaancct taccat 556

<210> 6278

<211> 556

<212> DNA

<213> Homo sapiens

<400> 6278

actttttggg acatataatt ttaatgtact gtgactctgc catctagcta ttattacttt 60 ttatacaaga tttggaaata tctctctcat tcagatattt taaatgtaat agcatttgat 120 atgatatact cgcacctaat aatctggtct ccactaagga cttattgtaa ttaaaaagtt 180 aaacaagtta gctgatggac aataaatctg ttttaaggag ggaagagaaa acaggccctt 240 gtaaatatta gctcttaagt gccagctact ttatatgcaa tatcatttga aagatctcct 300 accatactaa ataaagaatt ggaggccatt atccctatat tataattaaa ggtgggggag 360 420 gggagaagat cctcacaaga attcacaaag ctagatatta ttacccttcc tctctatttc tcaacagatg agaaaagtga ggccaaaaga agctaagcaa tttggtcaan gccatcatgc 480 540 anctatgtag tggggtggat ccgggtnaat ctactggctc ctggatncat gctttttggt 556 ctgaaccctg ctggtn

<210> 6279

<211> 555

<212> DNA

<213> Homo sapiens

<400> 6279

aagagagagg gtctcactct gtcacccagg ctggaatgca gtggcagaat cacagctcac 60 taatcctccc accttagccc cccaagtaac tggcatgaca ggtgtgcatc accatggccg 120 gctaattttt ttattttat ttttttagag gcatggtctc gttatgttgc ccaagctggt 180 ctcggactcc tggcctcaag agatcctcct gtctcagcct cccgagtagc taggattaca 240 ggatgagcca ctgcacctgg cagaagcacc attcttatag tattgtatat ttacaccctc 300 atattttcaa agttaaagga gcaaaatgtt tcccatgcag aagtagagat ggaaggagta 360 actaccacca tggcacttag atgtgaccaa atttataata aacagagtgt gattataact 420 480 540 ngggcaaang angggcagca atttagataa tagggctctc taatccttcc agtcttggaa natccggtac tctta 555

<210> 6280

<211> 559

<212> DNA

<213> Homo sapiens

<400> 6280

60 gtatttttag tagagatggg gcttcacgat gttggccggg gtggtcttga actcctgaca 120 tctaatgatc tacccacttt ggtctcccaa agtgctgaga ttacaggtgt gagtgactac 180 ccctggccag attaagttaa tttcaattgt tttgcagtcg cttgtactac aaagtgctat 240 aatgcagata tttgggacac ggtgtttaga gaacttcctg actacctgga tgtgagaagt 300 gaggtaaaaa gagccatgaa tgatgtccaa gtttctagct taggtagcta ggtgaaatgc 360 ggagtcaatc actaagggat gaaactggtg gttgggggct aggaaagatg attatgtaca gatttgaaca tggtgatttt catttgtggt agaggacatt caaataaaga tgtctaggat 420 480 gcaactagaa atatgaagtt aaacctgtta agaagatctg ggctggagat aactgatacc 540 ggacttcacc agattgaaaa tggaggncct tgggaaccan catttagntn tcatnggacc

| ttgtggaata | aacttttga | | . • | | | 559 |
|------------|------------|------------|------------|------------|------------|-----|
| <210> 6281 | | | • | | | |
| | | | | | | |
| <211> 563 | | | | | | |
| <212> DNA | | | | | ` | |
| <213> Homo | sapiens | • | | • | | |
| | | | | | | |
| <400> 6281 | | | , | • | | |
| ggggtgtttt | aggtaatttt | taagaactta | aaattattat | ttgttcctcc | ttaatatgaa | 60 |
| actcttccaa | aataccttct | gaccagtaag | taaatgttcc | ttaggcactg | tgaggtgtat | 120 |
| taatgatgaa | gcatgaaccc | aggctgagaa | gtgtacaatt | tgattttaac | tactgccaaa | 180 |
| acagttaaca | agctctgtct | tatccactga | cagcaggaaa | tgtctttacc | ccactactcc | 240 |
| tgagattcta | aaaagggaaa | actaatttca | caaacaacct | ttaaaagaat | ccatagatga | 300 |
| ttctaagaac | agcacatatt | cagggtatta | gaaaagatgt | tttcttttgt | aaggcatcaa | 360 |
| tgattaaact | aatagaacgc | atatttacta | acaaaagatg | gttaacatta | tcataaaacc | 420 |
| atttatcttt | ttaaacttct | ctaattcctg | ctaattttgc | cagcttaaat | taagaaatga | 480 |
| atggcctntt | ggcctaatca | actatngggt | attaaaaact | aagacatctg | gaacttttag | 540 |
| gcncatcaan | gnaccgggtt | atg | | | | 563 |
| | | | | | | |
| <210> 6282 | | | | | | |
| <211> 551 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6282 | | | | | | |
| agagtcagag | tctctgtcgc | ccaggctgga | gtgcagtggt | ataatcacag | cccactgcag | 60 |
| ccctgaactt | gtgatcctct | gcttcagccc | ctcagttatg | tcttggcaca | tagctaggac | 120 |
| aacagctgtg | tgccaccatg | cccagctaat | gttttttgtt | tgagacagtc | tcgctctgtc | 180 |

aaccgggctg aagtgcagtg gcacaatctt ggctcactgc aacctctgcc tcccaggttc 240

| aagcgattct | cctgcctcag | cctcccgagt | agctgggact | acggcatgtg | ccactacgcc | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| cagctaattt | ttgtactttc | aatagagatg | gggtttcacc | atgttggttg | gcgagaatgg | 360 |
| tctcaatctc | ttcacctcac | gatccgccgc | ctcggcctcc | caaagtgctg | ggattacagg | 420 |
| catgagccac | cgtgcccggc | tgctaatttt | tgaaaatata | tattttagag | acttttcttg | 480 |
| gggtctcggt | ttggtatgca | aggncagncn | tnaacttctg | gntttgaacg | aancttccgc | 540 |
| tgggcttcca | a . | | | | | 551 |

<210> 6283

<211> 560

<212> DNA

<213≻ Homo sapiens

<400> 6283

| gagacggagc | cttgctctgt | tgccaggctg | gagtgcagtg | gcacaatctc | ggctcactac | 60 |
|------------|-------------|------------|------------|------------|------------|-----|
| aacctccgcc | tcccaggttc | aagggattct | cccgcctcag | cctcctgagt | agctgggatt | 120 |
| acaggcgtgc | accaccaagc | ccagttaatt | tttgtatttt | tagtagacat | ggggtttcac | 180 |
| tgtgttggcc | aggatggtct | tgatctcctg | acttcatgat | ccacccacct | cggcctccca | 240 |
| aagtcctggg | attacaggca | tgagccactg | cgcccggccc | acaataaaac | attttaaaa | 300 |
| atcagaactt | ttggcataat | ctatttcgct | ttcccaggaa | aaggaatgta | gcagatttta | 360 |
| taacagagaa | gagaaag taa | agtcaagtca | agagtctaag | gtatttccat | attatcatca | 420 |
| aagttgcccg | ggagaaggtt | gggggtcaaa | agcttaagat | tncaggttgg | atgacctggn | 480 |
| tttggnatcc | aagcacagtt | cctcagtact | tacctgacct | taggtnggta | cctaaacctt | 540 |
| ttgagccttg | gttccctnat | | | | | 560 |

<210> 6284

<211> 580

<212> DNA

<213> Homo sapiens

<400> 6284

cataaaacaa aatttatctt taatttgtaa gtgtcaacag cagtacaaaa gatggagtga 60 tgacaactag attagggtag agaggacagt cttgaggtaa atgagcataa ataggcagtt 120 cttatagaca ctcccctaag gggcctgagc cccatcacgg catatacatt atcacccaaa 180 gatggcatgt tgaacatatc aggaaagcac cttgtgcaaa aaggaaaaaa aaaaagtagc 240 taaggtgcca acatacacca ggatagataa agacagtgng tctttcaatt ttgtcttttc 300 ccttaattat gaggcanagg aggggaagac tttgaaaagt nccactgaaa gattattcaa 360 420 tgttgagctt tatctcacgt caatactgca caacaaaatc caagaagttt gtgtatgcaa caaagctaag aacaatgatt cattcctgna aatttgaaga agaatttttt tatttttccc 480 atttetttaa teettacaaa etttttaata ttattateaa gaggagagtg tganaaaatg 540 tatggcaccc ttaagggcnt tnaaaacntt ncctggacng 580

<210> 6285

<211> 576

<212> DNA

<213> Homo sapiens

<400> 6285

aaaatttcag aactattgta catcaaagga cactatcaac agagtaaaaa ggcaaccaac 60 agaatggggg aggacatttg gaaatcacat atctgataag ggactaatat ctaatatata 120 taaaaactaa aacacaacaa caaaaaacaa cctattggat ttgaatagac atttcttcaa 180 agatatacaa acttaaatgt tcattgatgg ataaagaaaa tatgtataca tacaatgaga 240 tgttactcaa ccttaaaaag gaataaaatt ttgatacatg ctataacatg gatgaacctt 300 gcgattatta tgctaactaa gccagacaca aaggacaaat atcctatgat tccatttctg 360 tgaggtacct ggaacagtca aattcataga gatagaaagt aaaagtagtg gttaccagag 420 gttgggagag aggggagaag agagagtgat tgntcaatgg gtatagaggt ttaagtttgg 480 ggaagaagaa agtagttctg gnaaaaggta atgatgggtg cacaatcatg tgaatggncc 540 576 tnaagntact ggacnttncc aattaaaang accaaa

<210> 6286 <211> 534 <212> DNA <213> Homo sapiens

<400> 6286

aaatggattg tttttattaa tttacaatga aatagttttt gaatgacttc acacaaaaac 60 120 ctagagataa catcacaatt gcaatgttat aaagtttaaa ggcctattca tttcactgtc 180 agttgaaatt cgttaccagg tgaaaattct ggagctgggt tttgcactga ggatgctaca cagccactag cctttttaat ttggtcttat taacagaaat actgacttag tgaaattaca 240 300 ggcataggcc tcttaatcgc tttttatgag tctgaacttt tgctttcaat accaaatagt 360 atctgaaaaa catgctcact tttgtgcttc ttgagaaatt ctaagaattg gcccagattc atgtgatagt cattccttaa tccatagtca ccatgagcct caaggagtaa ctcttcaaaa 420 gaatgggaaa aggcgcaggt cctcaccatt tccttctgnc tccacgcttt cagcatgctt 480 acaggaaatg ngcttncnat tggggaccta aatgngngnc aaaacttctt acag 534

<210> 6287

₹211> 581

<212> DNA

<213> Homo sapiens

<400> 6287

caacgtgatc acceaactgt ttaatgtttg aaatttatat ttcatttctg aaggagagga 60 gacagaccca aacttttata tctttccagt tggctgtaca atttctgaac cttgtccttg 120 tagacacctg gtcaccggaa accatcatgt ctgtaaaact accacacagt ccagcctcca 180 tcctcaactg ccgccctctt cctctctgca ctggagccgg ccaggccacc tcctcccaa 240 ccgtggaaca ccatggtgac aggagatggc cctggccagg gggaggctgc tgggactgca 300 cccccatcct gaccagacct ccctcctttg tcccctgcag agcctccaag gcaggtcatc 360 ctgacactgc aacccacttt ggtggctgtg ggcaagtcct taccattgag tgcaggtgc 420

| ccaccgtgga | gcccctggac | agcctaccct | ttttctggtc | cgnggcaatg | agactctgga | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| ctatgagacc | tttnggaaag | gcagcccctg | ttccncagga | aggeneagee | ccattnaaca | 540 |
| agcacgggtt | acaaaaagga | tggccnccgg | aactttttt | n | | 581 |

<210> 6288

<211> 561

<212> DNA

<213> Homo sapiens

<400> 6288

| gagacggagt | ctcgctgttg | cccaggagta | cagtggcgca | atctcagctc | actgtaagct | 60 |
|------------|------------|------------|------------|------------|------------|------|
| ccgcctcccg | ggttcaattg | attctcctgc | ctcagcctcc | agagtagctg | ggactacagg | 120 |
| cgccgccac | cacgcccggc | taatttttg | tatttttagt | agagacgggg | tttcaccctg | 180 |
| ttagccaaga | tggtctggat | ctcctgacgt | cgtgagccgc | ccgcctcggc | ctcccaaagt | 240 |
| gctgcgatta | caggcgtgag | ccaccgcgtc | cggccaataa | atggtttcta | attaaaggat | 300 |
| tgtgacattt | aatagccgtt | gcttgctctt | gtcttgctcc | cttctctctc | gaaacttgtt | .360 |
| aagaaataac | tcaatattct | ggcttgggta | aagtaaatat | aatgctattg | gatattttgg | 420 |
| tccattgaat | tgataagact | tttcaagtaa | aagttgcttt | ttanggtagn | atcttcatgg | 480 |
| ccttgagaaa | gttgcttggc | tctctttgga | ccaanttggc | actggcnttn | ttaccggaca | 540 |
| aatttggngc | tttanaattt | a | • | | | 561 |

<210> 6289

<211> 567

<212> DNA

<213> Homo sapiens

<400> 6289

gagatagact ctcactctgt cgcccaggct ggagcccagt ggtgcgatct cgactcctg 60 caagctccgc ctcacaggtt catgccattc tcctgcctca gcatctgggg tagctgggac 120

tacaggcgcc agccaccatg cccagctaat tttttgtatt tttagtaga acagggattc 180
accctgttag ccaggaaagt ctcgatctcc tgaccccgtg atctgcctgc ctcggcctcc 240
caaagtgctg ggattatagg catgagcctc cgtgcctggc ctcatatccc ttttaaaaat 300
tactagata tatccctttt aaaaagtact aactgaaaaa agtactatct ctttaaaaag 360
tactggctca aaaaaataat agaaaataag aaacaaaaaa caggctgaga aaagtgggct 420
cacatctgtt ggccatgctg gtttcaaact cctggacctc aagtgaccat gggccttggg 480
ctccgacntg ctnggaatac anggnngaag cccaaaactg ggcccatcct tttaacataa 540
acncttgaag ggnaataaag gcttgac 567

<210> 6290

⟨211⟩ 537

<212> DNA

<213> Homo sapiens

<400> 6290

gtgcatagtg tatcttttcc tagggactga gaatgcagaa tatattaaat taatatggca 60 aactgtattt ttttctgttt gttttcaata cagctaaaca aatctatttt gtgcattctc 120 agtgctcgag gcattttcac agcaatcctg tattaatgcc catcgactgg ccttcttttg 180 gggcattgcc ttcttgcttt gcttttctat ctagtaatcg gaggacaaag gacagaagct 240 gggcagtgga tgagtagatt gaatgggaaa tcctttaagc tggccaaaga ggtcactgtg 300 gcatgtgtac tgaaaactct catggtgtcc gccctatccc ctctcccctg tcagagaaca 360 gacccatcca ctgcatagaa ggcgcagccc tgcttgactt ttttcaaagc tggctggact 420 tacatggatg tcagacctgc agtgagccag atttgctttc ctgggattga agtggaaaac 480 ctgacccaag ggcnntnact gggaaanngg ctttcangga ttnctacctt ggggaat 537

<210> 6291

<211> 558

<212> DNA

<213> Homo sapiens

<400> 6291

ggtcaggatc tctctccaag gttactgaat tgaactataa agttccccta tggaaataat 60 atgtcaaaaa aaaaaaaaa ataagaatag ctgtctagta gcagagtgca ttcagtaggt 120 agctggaaat caagtacttt attcctctgc taggattaag taaccattcc cacctggtcc 180 acttettgae caatttteta aagtggagte agtetgtete tattgetett tetetaatgt 240 300 ggactttaaa atcaaagttt aggttaaaag agatagatta gaaaacatac atttaacaca 360 cacatacaca aacacaaagt tggaaagcaa gagagcttct tcagtcaagt agacccactt ttggtgttct tttacaaatc aaccacact caactaacca aaaattaggg caaatcagac 420 atgtattata aaaacaatgg gaaagaatat tagaaatgag aactattcca ngaaatctag 480 accgatactt taataanaag ccttcaaaan ccataccccg attnccgaac ntttggggaa 540 558 cagtaaancc tcttaatn

<210> 6292

<211> 570

<212> DNA

<213> Homo sapiens

<400> 6292

gtacacagag agagggaatt tcagaatttt tacatacatt ttagcaaaca agttttgatc 60 tattggcttc ttggtgcagt aatgcaacgg caatccattc tggtgccaaa ggctcatact 120 attacaagga agttgtgaac actaatttct taggaggtga ggccagcccc acatgaactt 180 240 ctcttgcatc cctctggtcc accatgacac ataaatactt agactttttt ttttcctcta 300 atgaatcatt agacattaaa aacggaataa cagagtcaca aagggccaca tgcttttcgg tataaagcat teteettete taggttgeta teacagtgea gacetgactg cetgaatatg 360 ctcaggagat ttagtcaata ttgtctgtat ttggttatgg aaaaggctct ccttttttt 420 ttttttttta aatccaaagt gcatagtgag aacaaaccaa agcattttt tttccttctc 480 agcatcagnt tcatctgagc attttccatg anaggcctgt taaatgcctg nctttggcct 540 570 ttcaaccttc aaaattaaaa attnnatnna

<210> 6293
<211> 586
<212> DNA
<213> Homo sapiens

<400> 6293

gacagggtct agctctgttg cacaggctgg agtgcagtgg tgcaatatca gctcactgaa 60 accoggettt caagtgattc tcttgtctca gcctcccaag tagctgggat tacaggtgcc 120 ttccacaaca cccagctaat ttttgtattt ttagtggaga caaggtttca ccatgttggc 180 caggctggac ttgaactcct gaccttaagt gatccgcctg ccttggcctc ccaaagtgct 240 gagattacag gcctcagcca ccgtgcctgg ccctatcctt tcctctgaag attccatttt 300 atttttctga aaagccagct ccctggtgct cttttccttc tataatgaga cctcaacaat 360 gtaaattgag aaggtgattt tcacaaaatg cattctgcct tggtccttct aaaaatcgag 420 tttttggaaa ctgctgtttc taacaagata acatccaaca gaagctacta atttcctttc 480 aaaccttagc ttntggaaat gtaagagata ttaccnggaa atgaatgggt cttggccaat 540 ggatgtaaac tccgagaaac tntnngggna agtaaaaggg ggncaa 586

<210> 6294

<211> 586

<212> DNA

<213> Homo sapiens

<400> 6294

gcagaacctt gaaataaaac atgttttaca gtaagttcac acacaggctt attgcaaacc 120 agagtaatgc acagatgatt gccaagacca tattgacaaa ttgtgattag attataacgc 180 atagtagcct gccttacatt cagcaagttc aaacaggaca caaaaccagt caactgaaca 240 cagagcagct ctcttcagaa gcacttccaa tgagtgatgc agagatttca aaaatacaaa 300

gcaggcaact tatatacagc aaatcctcac actgcctgga catgtgccac ttttttggtg 360 gttttaatat atttttcctt tctggntgcc aatttagact gaattcttaa ngatttatct 420 tggatgactt agaaaaatcc cctgnccttt cttactttgg ttcaagnagg accagncatg 480 aaaattgagt naggcctctt aaaaaatgga aggtcncaga tcccatgggg gaaggtttan 540 gaancccttn ccaggtaatg gatcccggga atnttaacag gttaan 586

<210> 6295

(211) 588

<212> DNA

<213> Homo sapiens

<400> 6295

gaagcctgtg aaattttatt tatacaaaag aataaaaagt tatttaaaaa gaactgattt 60 aaacttatgt ttttccattt ttcctgttcc ttgaacatga atctactacc aactcagaaa 120 gatttaagat aggtaattac taaacactct ttacctcccc ttgcaaaaaa cagaggcaag 180 tttcccattt tacttatgat aaaccagatt attttcagtt atgaatattg gcaactgcat 240 gaaagagatg atcagatatg tcagcaggaa agtatgagct gtacaaaggc attacaaaaa 300 aaaccccaaa gaaaataaga taaaaacaac aagagaaaaa caagaaaaca taaaacaata 360 taagaaaatg ccagatattt acagcctcca tctgaaatgt gacttgngtt ctactttcag 420 cataaaacaa aaccagagaa catttcttgg aagggtatca cagatgaagc tggtgccagc 480 cagttttggg ggagacattc attctaagaa gggagaaacg cncagntagc acttgctggg 540 attocaccat tggcttcatc ttnccggaag tctggtacta aaaaaggn 588 ·

<210> 6296

<211> 582

<212> DNA

<213> Homo sapiens

<400> 6296

ggtctatctt ccctactatt gatagggaca tgggcacaga gaaataccta attagaatag 60 gaaaacaaca gtgcaagtgt cctgataaag ggcaagtgac ctcagctggt aagtggtaaa 120 tgatttgagt gtcagggaaa ctattataca ttccgggtga ctcttacaag tttccaaaaa 180 tcaaatccac ataggacaag aattttcacc actgagaata tgcagaagaa tgtaggacaa 240 ttctcagagt aactcacaag aagtattcaa atatgattaa tgcaatggca cattgttgaa 300 acatacgtat tiggatatat aaatcicacg tgcttgttaa agttataggc acaatgtatg 360 agetteeatt tgtaatette aaaagagata eteatgagag gaaaggeaat cagaaagang 420 gaggattagt aatggtataa aacttcatga atgnactaaa acccctggac tgtcacttta 480 atgggcaaat ttatggatgt acatatette aataaaceta attttttta aagaagggga 540 582 gattgtaacc taaaagaagt gncttggaaa anggagggnt tt

<210> 6297

⟨211⟩ 575

<212> DNA

<213> Homo sapiens

<400> 6297

gttttgtttt gtttttttgc caagaataag agtccctgat catcctgtgc actttactag 60 tatactgcac aaaacacage aggttctcaa taaaaataat agttactaaa ttttactatt 120 actitticta ccagattita atactgagta tgaacatcac atgtagtitc tittcgctit 180 cagtcactta aactgtatcc cagactcttg tcctatcaaa aaaactcaat catctttcat 240 tcttttttta aaaaaaggac acttttaatc tttattggta actttttctt attgtagcaa 300 aagtgcataa tattacattt accatcttgc ccattttgta ttgtacagtt cagtagtgct 360 acctgtattc accctgttgt gcaatggatc tccaaaactt ttacatcttg caaaactgaa 420 atgctggtat ccattaaaca atttcccttt tcccccatcc ctcattctct ggcagccaca 480 atcttattct ggctctatga atngctactt aaagnacctc atcnggtaga atgatncatt 540 575 tggatttttg gggctggctt aatcacttan caaca

<210> 6298

<211> 579 <212> DNA <213> Homo sapiens

<400> 6298

ccagagacag gacctcaccc tgcagcccag gctggagtgc agtggcgtga ttatagctca 60 120 ctgcagcctc caactcattg gctcaagcga tcccccagtc ttagcctttc gagtagctgg 180 gactactggc acatgccacc atgctcagct aatttttaaa tttttttgt agagacgggg 240 tctcgttatg ttgcccaagg tggtctcaaa ctcctggcct caagcgatcc tcctgcctca 300 gcctcccaaa gcgttgagat tagaggcttg agccaccatg cccagcctat tcactctttc 360 tttagaaatg tgaagtgacc cctgaaaaac ctggaggaag aaggaaaagg aaggatcctg 420 gataattatc taccctgtgg gaagccattt taactatact gcattaagac attcattgct tctggcactt tcttactggc tcctaacttt ggttcatgtt tccaaaggca tttaataatt 480 cttttnctaa tttcaaaggc tgtggggttt naagaataaa ttatcaagcc tactgncaca 540 ccaccaacct nggacttanc aatggnccct gaangttgg 579

<210> 6299

⟨211⟩ 584

<212> DNA

<213> Homo sapiens

<400> 6299

cctgttttga aagtgtttta attagacaaa agcatcagga caaaccattt taaaaacaaa 60 gtcttcaact tgggtgttga gattggcaaa aggggaagca agggaaaagc caaggaaaga 120 taaaatattc agaagaaagt caaagttatc tgcaattaca tgttagaaca gattttgcag 180 gttaaaaaga tgttgcttaa atatattcat aagcctgttg taagattttc acttatgcag 240 tttcagaaaa tttagctgct taacatatga cagaactgta ttttaacaaa tgacattaaa 300 agtcaggaga gctactcagt taattgataa agtagaggca acgtggggaa gccctcccca 360 cgtttattga agatttgtgg ctcccccagc cctgtttgcc tgcatcaggc taacaacctc 420

attcctcca tagagcctgg ccaaatcaca ggctttctgc tgtaggcact cattgagctt 480 gctgccgccg ttgncctttc ctttcctttc ccggntttgn ggggggcctt tggaaatggg 540 gaaaagtcct gggnaacctn ggcccagttc tgagtagggg gagn 584

<210> 6300

⟨211⟩ 571

<212> DNA

<213> Homo sapiens

<400> 6300

gccttgtgat tcaccttact ctcggccatt tcctgagcca cgtctgaaga aatcctgtac 60 tgccaagata tatcctcaga caaagaaatg tccattagtc actcactaaa agggtaaaaa 120 gcaatcgaaa tgttttccta tctgaacccc tggtgccagc acagtataca gtagacaata 180 tatgccataa tttattgcct gaactcccca ttgatgtgac catgatatgt caatggaaag 240 tgagttcata aaaaataaat tctcattctc ttcaaataaa tttattgaga ttctatgaca 300 360 ctcccagaac gtggatatag caaacaacac tatgtaccat ccatgaaaaa acttacaatc 420 cagtaggaga aaaagacaag taaacaagca gttattgtag agcataataa gaaataaatg 480 aaaactgcca tatgggcatt ttagttggta cagtcaatgc caaatagaga gagcagtanc agtttcctga aaaagtgatg gctanggtga gacctaaatg ccggtaggaa ttnaactggg 540 571 gnaaatgttg gaagengene aetttangga e

<210> 6301

<211> 574

<212> DNA

<213> Homo sapiens

<400> 6301

gggacagagt cttgctgcga tgcccaggct gaagtgcaat ggtgctatct cagcttgctg 60 caaccttcac ctcctgggtt cgggtagttc ttccgcctcg gcctccagag tggctgggag 120

tgcaggtgca tgccaccaca cctggctggt ttttgtattt ttggtagaga tggagtttca 180 ccgtgttggc cgggatggtc ttgaactcct gacctcaagt gatccactga cctcagcctc 240 ccaaagtgct gggattacat gtgtaagcca ctacgcccat cctccatcat taaacttttt 300 aatgtgaaat tctatcatgt accattaacc taacaagatt ttctttccta tttctgactg 360 gtgcctttcc ccttttcagg agcaatgaaa gctactctgt tagttatgtt cttctgatgt 420 gacaaaatgt caagaagata ggagaagaga atattttgnt ttgntgatgc ttttggtccc 480 aagtgtgacc ctaaacttaa gctttgtagg aactgaggtc tctcatgncc ctttccttta 540 ctcatgcca actntnactn nggcanttgg gctt 574

<210> 6302

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6302

ctttaattat actttaagtt ctgggatata tgtgcagaat gtgcaggttt gttacatagg 60 tacacatgtg ccatggtggt ttgctgccc catcaaccca taatctacat taggtatttc 120 tcttaatgct atcacttccc ttgcctctca cccccgaca ggccctggtg tgtgatgttc 180 ccccactgt gcccgtatgt tctcattgtt caactcccac ttatgagtga gaacatgcgg 240 tgtttggttt tctgttcctg tgttagtttg ctgagaataa tggtttccag cttcatccat 300 gtccctgcaa aggacatgaa ctcattcttt tttatggctg catagtattc catggtgttt 360 atgtgccata ttttctttat cccgtctatc attgatgggc atttgggttg gttccaagtc 420 tttgntattg ngaataagtg ctgcaataaa catatgtatg catgngtctt tatagtagaa 480 540 tgatttttaa acctttgggg aaaggccctt ggaaaagggg acttttgggc cagcaatcca agengtgana aaagtgagee atgennaeee tttgggaaaa a 581

<210> 6303

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6303

aaattttgga atagtttcat tatacttata atgagcattg cctttgagcg gcatttgggt 60 gctcatcaag tttcagattt tgaagcattt aggattttgg attttcagat tggggatgct 120 caacctgcat tcatttttct taaaactaca tttaaatatt ttagtacatc acagtttatt 180 240 ataaaataac cttgagtatt tgtctacatc ccttgaggta ttacaccagt tttcaactaa 300 gaaatcagca ggaatagaaa cactgcacac aaaacctaca aaacctccta tcaacaggga 360 agagtgaaca agaatgtatc ctgtctgcac agggacagtc ggcatgaaaa atatagcaag 420 tcaaagggct ggcaagatgg ctgaatagga acagctctgg tctgcagctc ccagcaagat caatgcagaa ggtgggtgat tctgcatctt caactgaggg tcctagctca tctcattagg 480 actgggtaga cagtgggtgc agancacgga gggccagcag aancnngggt tggccgtcgc 540 ctcatccggg aagtccanga gcccgggaac ttccttccct acc 583

<210> 6304

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6304

gagacagagt cttgctctgt cacccaggct ggagtgcagt ggtgcgactt ggctcactgc 60 aacctccgcc tcccgggttc aagcatttct tctgcgtcag cctcccgagt agctgggact 120 acagatgcac gccaccaggc ctagctaatt tttgtatttt cagtagagac agggtttcac 180 catattgacc aggetggtct ccaactectg acctegtgat eegecaacct eggeeteeca 240 aagtgetggg attacaggeg tgagecacea gaceeggeee ttaagtggte tttatgtgag 300 tattaactgt ataactcgac cttcctgtgt tttttttaac atttttcaaa aataagatgg 360 420 agaaaaaaag taggcattga aattgcgtga gagactgcct gccatgtaag agtttagcaa 480 aatgeetgga etgeagaatg tgeteaaata aeggtaacaa attaeteaaa aacaaattae 540 taaattagtt atgggcccta tttttcangg acttntggct tcaganttct agtaaggttt

tnacaactgc agaagttgta agtgaanatt tcaggatggn t 581 <210> 6305 <211> 474 <212> DNA <213> Homo sapiens <400> 6305 60 attatacttt aaagttctag gggtacatgg tgcacaacat gcaggtttgn taccgtatgt atacatgtgc catgttggtg tgctgcaccc gttaactcgt catttacatt aggtatatct 120 cctaatgcta tccctccct ctcccccac cccacgacag gccccagtgt gtgatgttcc 180 ccaccetgtg teetggtgtt eteattgtte agtteccace tatgagtgag aacatgeagt 240 gtttggtttt ctgnccttgt gatagntttc tcagaatgat ggnttccagc ttcatccatg 300 360 tecetacaaa agacatgaac teateettin tittiggetge atagnattee atggtgtata 420 tgtgccacat tttcttaatc cagtcgatca ttgattnggg ttggttccaa gtcttngcta 474 tcgaaaatag tgcttgcant caatggaccg ngggcntgtg gntnttcatg gggc <210> 6306 ⟨211⟩ 565 <212> DNA <213> Homo sapiens <400> 6306 aacaaaattt ttatttaata aatggttaaa atcgcagtgc caaaaataca ttgacattta 60 gcaatttcac tgaaaggaag aaactacaga atgcacggtt tcagaaagct attttaagtt 120 atttacaaat aaagtatcta aaactcaaaa acaggctctg tatgctatat ctagtttatc 180 240 ccttcccgaa caaaatttct gttatttggg caaattctta aaccatggtt taaaccgtaa

300

tggttacaaa ccacaaacac atccatccag agactgaaac cgtttctatc cggtcagtgg

caaaactgtt gaaagggcaa tagttgaagc tgttgggttt tatatagtgt gaactctgat

| aaatattcct | accaggacta | aaacacagca | cgctttgcgg | gcatggctga | ctcacaaagg | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| ttgtaacaaa | caagaactac | tcttcactcg | acaccatggc | tcaaaggcca | ccgagaagca | 480 |
| cgagtgactg | acagcttctc | tgnttacaaa | cgaatggaac | cccaagngga | tggcggttta | 540 |
| cagggctgga | aggggttang | gcttc | | | | 565 |

<210> 6307

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6307

| agctaatgag | aaatgccaca | cagtgtcttc | aatattgttt | acaactgcaa | attgccttca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tgaaaataat | ttaattgctc | ctgagaggcc | tgatagatgt | ccctgaattc | tgtccagcca | 120 |
| tgccatgact | gacagaacag | agaaaccagg | aaaaggtcac | acacggtttg | agaaaccatc | 180 |
| aaaatgtggt | gtccatctcc | tggccaagac | aggaatttac | agcaccattg | tggtgttcaa | 240 |
| aaactgtcag | aaaccttagg | aattgtcaca | gttaccacaa | ctacacattc | cagcaaagag | 300 |
| gaatggaaga | cagaggcaac | atgaaccagg | agggtagaag | gtctgtcccc | cagcactgaa | 360 |
| gcaggcacaa | aggcataacg | tgaaacactc | atggagaata | aacaaacagt | ttaaattgca | 420 |
| caattaaact | ataaaattca | acactgactg | caaactggct | tttaaaatgt | gtagacctat | 480 |
| caccctacta | tggnttatct | cttttaccaa | aaatctgnca | ggttcaacta | ttttggtaca | 540 |
| tangnatttc | ttccctttgg | naggcagact | taactatttt | nta | | 583 |

<210> 6308

<211> 576

<212> DNA

<213> Homo sapiens

<400> 6308

gatggagtct tgctgtgtca cccaggctgg aatgcagtgg cacaatctct gcccactgca 60

acctetecet cetgggttea ageaattete etgeeteage etecetagta tetaggatta 120 caggtgccca ccacccgccc ggctaatttt tttttttatt tttagtagag atagggtttc 180 gccatgttgg ccaggctggt cttaaactcc tgacctcaag tggtccaaac acctcggcct 240 cccaaagtgc tgggatttca ggtgtgagcc accacacctg acctcattta cctatttggt 300 aacaataaga aaatagctac ccccaaatta gtgccgtatt gacagtaagt tatgtgcaaa 360 taatattett taaaagatta agatgtgaat gtgettaeat acaataggag aggteateea 420 cgattactca atgtatactt taagttggaa aatcacaata ctgatgaaat aattccatga 480 tatagattat catttttaca ttcatggnaa aaattaagaa caggtcaaga agcttaaagc 540 taatgagett acettnteet taaccaaaaa gaaaaa 576

· <210> 6309

<211> 591

<212> DNA

<213> Homo sapiens

<400> 6309

gttgttgttg tcaaaaatca atattgctga aacccaaaaa gggacttgtg ttcaaccatt 60 ggtttcctca atgagggatc ggtcagtctt attggcaaga ctctttttcc agctagtaca 120 agatgctage tetttteeta getgacaatt gacagtatet ataaacette caggecattt 180 aactctcaat gagtaatgct atgtaacaaa tggtttatca tacatgtttc catacaatga 240 atttcaataa ttaaaatgta aaatgaatat ttggaatgcg actttgcata atgcgtgcac 300 actgactcaa aattacaccg aacaactaaa acagatttat tgttctacgg tgatttactt 360 ggtcatgtca gattagtaat atggatctgt ttaaaaacac aaaaattaag acaagcagga 420 taaattaatc aacttacaat atggtctcat actgcaatca aatccggcaa ataacagtag 480 aaaatcttgg ntcacagaat ctctttaaac tgnttttatg cataaattaa anccttaagg 540 gnanatggat taccgtccaa cagaactact ggagcttaaa gggtaatgga t 591

<210> 6310

<211> 592

<212> DNA

<213≻ Homo sapiens

<400> 6310

| gttagtcaca | tatttacata | agatatcata | gtcatggtag | actaatgaga | ggagaagcat | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tttggttatg | tcatttcggg | ataattttat | cagttgtgag | agtttaacaa | taaagaacat | 120 |
| aaaacttgct | gtttcataaa | aatatgaaat | tttcctggag | aaattttgac | ttaataaagg | 180 |
| aacaaagaac | tcagtttgta | gtgaataaaa | ttttacattc | acttccccac | tttctcatag | 240 |
| aagatctaca | gttggggata | accgataaga | ggcaattggt | ttctggctta | agagcctttt | 300 |
| tcattaggaa | ttttcggtaa | attaaagtct | gaaattagaa | aaacattaga | cattaatcaa | 360 |
| cagaccaaca | ccagtcacgt | aaataaatgg | cattcgtata | atttggcagc | tgaaattctt | 420 |
| aaataatctg | gcaggtacaa | ggagagaaag | aggaaaaatg | aaccgttcat | cattctcact | 480 |
| gcggtctcac | cgtttncctt | cacaccccat | tacagcgaat | ggaagagaaa | ggaccatcgt | 540 |
| aaaatntaag | ncggncctaa | atncggcact | tagcttccaa | accttcctgg | gn | 592 |

⟨210⟩ 6311

⟨211⟩ 589

<212> DNA

<213> Homo sapiens

<400> 6311

| atttctgttg | ccatgttttt | tccagggctt | cccgccccg | ttctcagagc | tcgcagtgga | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tgcagtcact | acaccactcc | cgggcttgta | acccatcaca | gcctggactc | ctttggtcaa | 120 |
| agccctcaca | ttctcttgat | ggaaaaaagt | tttgtcaacg | atattttcaa | tctgctttgc | 180 |
| ttttttattt | ctgcctagct | gcatttttat | ttcatcactg | ttcattttgt | tctctaggag | 240 |
| tcgctggtgt | tgatgctgaa | aagttacagg | atctcttcca | ggaggaggat | ggcagtacag | 300 |
| cagcttacca | ctgacatagt | ccttcaggat | gtagcgcgca | gatcgaggct | ggtctggctg | 360 |
| tccatgcgct | gtcatgaatc | ctcgcatgtc | tgtggagaga | aaagaatttt | gcaaaatctt | 420 |
| agatgacaga | atatcacaac | aaagacaact | gaggtgatgt | agcttctatt | actaagcatt | 480 |

| Citacicity | gattttaaaa | aattangnat | Cantggagaa | latatatigg | itaacaitaa | 340 |
|------------------------|------------|------------|------------|------------|------------|-----|
| aaccctngat | aatccaggag | aatattacct | atatctggaa | tcctaaaag | | 589 |
| | | | | | | |
| ⟨210⟩ 6312 | | | | | | |
| <211> 581 | | • | | | | |
| · | | | • | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | • | | | | |
| <400> 6312 | | | | | | |
| ccgattgtca | cttctgttta | ttgagttaca | agttgagatg | tgcaggttcg | gtggcgccag | 60 |
| ccccccatc | cccccctt | gggcaaaaat | agctcccagc | gccgaggaat | ggggggtagg | 120 |
| aagggtctcg | gataacggga | tggggcctcg | agggtccctg | tggggctcgt | gggtcccagg | 180 |
| atcaagcacg | gctgacacgg | aagacagcgg | ggtggggggc | ctgccttggc | cgtggcgttg | 240 |
| gggggaaggt | gagggagagc | ttctgtacaa | ggtcatcttc | cgtgagggtc | ccggctgcgg | 300 |
| ccccaaaacg | ccgatgggcc | ccgcgggacg | gaagcggaga | gcggaatgtc | cgctgggctc | 360 |
| cctcggatgc | cacgccccgc | caggcagcct | gggggcgtct | cctgacctgg | cccgcccac | 420 |
| cggagcgaac | ggcccgccaa | gtggtcttgc | gcttgaaacc | tgcgcaagct | cgggcctctt | 480 |
| cttgttgcgg | ttngcttacc | aaccgatgcc | ccgccggcca | acggntactt | ttgcttntga | 540 |
| agcnccggan | tggcttccgt | anaacctttg | gccaggcttc | g | | 581 |
| | | | | | | |
| <210> 6313 | | | | | | |
| <211> 555 | | | | | | |
| <212> DNA | | | | | | , |
| | canionà | | | | | |
| <213> Homo | Sapiens | | | | | |
| • | | | | | | |

<400> 6313 .

| tcagagccaa | ccatgagaac | acaaaggatc | cctcccatt | cagtcccatc | tctgactccg | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| catctagacc | ttgtctgcaa | agaaattaaa | acgtcttaat | tcatgcaaaa | ataaaaacaa | 300 |
| taaacctgaa | aaggtagtga | acagacacac | agtagttctg | caaaagaatt | cagccaaggg | 360 |
| ggtcaaatat | tttccaatac | tggataaatg | ggaacaactt | cggcctcctc | cccttttcaa | 420 |
| atatcatgac | caatgacaca | tcctttttt | tttttcctgc | anaagtncac | gagcctacca | 480 |
| aagacaggtt | ttctggtccc | agggagccaa | ccanggngga | cagcttctta | atggtnactc | 540 |
| cngggttnag | aaggc | | | | | 555 |

<210> 6314

⟨211⟩ 588

<212> DNA

<213> Homo sapiens

<400> 6314

agacaaagtc tcactctgtc acccaggctg aagtgcagtg gcatgatctt ggttctgcaa 60 cctccacctc ccaggctcaa gtgattctcc tgccttagcc tcctgagtag ctgggactac 120 aggtgtgggc caccatgccc agctaatttt tgtattttta gtagagacgg ggtttcgcca 180 tgttgcccag gctggtctca aactcctgac ctcaggtgat ctgcctgcgt cagtttccca 240 aagtgctggg attacaggcg tgagccaccg tacccggcca agatgtttaa attacacatt 300 tgcataaaga gtaattggat tgcaaagctg aatgccttca aatataacat attttactgt 360 420 ccttctggca aaaatatccc atagttaagt ccaggaacaa atggctgaaa acagaaggca 480 atgaccatgg acaccttttg gatcctaata cctttagtaa agacncagtt aaacagtcca 540 cctgggaact cttaagcaca atggcaacaa ctgnagggca caaggcnc 588

<210> 6315

<211> 587

<212> DNA

<213> Homo sapiens

<400> 6315

gagatggagt cttgctctgt tgcccaggct ggagtgtaat ggctcaatct cggctcactg 60 caacctctac ctcctgggct caagcgattc ccccgcctca gcctcccgag tagctgggac 120 tacaggtgcc tgccactgtg cccagctaaa ttttgtattt ttagtagaga tggggtttca 180 acatettgge caggetggte teaaacttet gacetegtga tecacetgee teggeeteec 240 aaagtgccgg gaccacaggc gtgagccacc gtgcccggcc aacacagacc tctttaaaac 300 360 caaattctct accagcttcc tacaaaattt gtatggcatc aatgggtaca catactacca tetgateact catatecaae tgaaatagge attetgatea egaaattttt ttggtgtagt 420 cattgactat atttatgaat tcatacatga tcattcttca actaagtatg aactaactcc 480 tggattettg gtetagttag ggettaagaa attattteet tetaaateea agggaetget 540 587 aatcagtana acctttgtgg aaactaactt ccaanatgcc ggggggn

<210> 6316

⟨211⟩ 578

<212> DNA

<213> Homo sapiens

<400> 6316

ctttttatta agatctgaga taggaacggt catacttagt actgaaaggc agacaataaa 60 atgggccatg aaagggggg gaaaggtact gtctattgtt cgagggattc aaccagagat 120 aaaacctata tacaagcatg tgtgtagctc gaaataaaaa taaaaggact atttcatgtc 180 atgactgett gttggettee tetteatatg catteeetgt gecattetgt acataggatg 240 300 aaccagaacc aaggccatac aaatgaccac aatatttggc atcatcaata tgatcttcaa agaacatttc tctcattttg aaaaaggcca ttcctgtgag caatgaatca gatcctgcct 360 gatgttgtgg tcctatccgt tccagctcta actgttctgc cacctcctgt aatccacctt 420 480 tgagattttt gcagctcttc atgaggnact tcacatcata aatgacagga aaaaacaatc 540 gaaggatete aaagaagcaa gtettettan geaagntaaa attgggtang aatttgatta 578 agnacccaag tennancegt tttaaaggee accetttg

| <210> 6317 | | | | | | |
|------------|------------|------------|------------|------------|------------|-----|
| <211> 551 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6317 | | • | | | | |
| aacagtaaga | ataccactat | ttatttagca | tttactatgt | accaggcaca | gggctaagag | 60 |
| ctttacatga | aataatcatt | taaccctcat | tcgatcattt | aatatctaat | aaggtagcta | 120 |
| gatatagaca | aggaaatgtg | ttagtaactt | gcccaagatc | acaggtggtg | aaggtagtat | 180 |
| tcaaaacttc | agacctcaag | ttcttaatga | ctacagtaga | tagaaacatg | ggaaagtact | 240 |
| tacaatactt | tgatttgaaa | aagaagaata | taaaatatat | actaggtaca | gccctataaa | 300 |
| aatatgtgtg | tgtgggcaag | gacagaagat | gagctataca | aatgaacaca | gatgttatag | 360 |
| tggtgtggga | tggttatgag | tgaaacagtt | ctctaatgnt | gntaatatat | tttaagaaaa | 420 |
| aatttttaga | agtcatgaat | tcacaaataa | ctcttctacc | attactatta | ttattctgnt | 480 |
| ttcaaccatt | ggacaccaag | gtgngnggng | ggttncataa | cttccggnga | cacagttant | 540 |
| gggctccttt | a | | | | | 55 |
| | | • | | | | |
| <210> 6318 | | | | | | |
| <211> 534 | | | | • | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | • | |
| <400> 6318 | • | | | | | |
| aacttacaaa | caaaaatacc | gtaataataa | acccaaacaa | agaccctcag | cttgctgcca | 60 |

180

240

300

cgttctctat gcggtttggc ggggcgggta tttacaagcc tacagctggg actgaaaccc

cgcacgcagc cgccggagtt tccaaactgc gatcccttct cacccaaaga aacaagggga

gtatgatcca tgatcaacaa catgctaaag ttaaacaaga aaatggtaca aaatagaaat

tattaccata catgtccagc atgcaggatt aatattttta atgcagattt tttgtatttt

tctatataat cgagcaggca ataaaactga tgagatttgg gcgccgagcg tcctaactga 360 ggcctgtgtc tcagggctga gagccagtgt tctccgaact ctgacagaca ggtccgtctg 420 tccttccttc tttcgctcaa gctcgctntn gcctgccggg acgccagaag tccctcttct 480 tttcctcgtg ntctntttct ggngcggcta cttttcnggc agcaaaacaa ntgg 534

<210> 6319 ⋅

<211> 512

<212> DNA

<213> Homo sapiens

<400> 6319

ganacgtctg tttctgtcac ccaggctgga gtgcagnggc gcagnggcgt gatctcggct 60 cactgcaacc tccacctccc gagttcaagc aattcccctc cctcagtctc ccaagtagct 120 gggattacag tcgcgccca ccacaccngg ctaattttt ttttttaagt anagacaggg 180 tttcaccacg ctggccaggc tggngaaaac tcccaacctc aggggatcca cccacctcag 240 cctcccaaag ngttgggatt acaggngtga gccactgngc ccggccccta gnaagttttt 300 tttttttaa agttttgnga aacactaaca gggtttgaaa nagggcattt tccaaaacaa 360 attactatat tatatgnngg aatcattaac ttttcatatg ataaaagggg gatgaaatca 420 ctaangactt aatagaaagg ttaattgggc ngaatccgnn taaaatangg ggtaaacccc 480 512 actnnggcac tggctggggt accttgggcc ca

<210> 6320

<211> 530

<212> DNA

<213> Homo sapiens

<400> 6320

ggcgtgcagg gccaacttta atacgggccg gcctgtctgg gggtcgaggn ggccgctccc 60 tttgtccttg nggctttcca cgggcagggg cggtcccagc gagatcgtct cataaccaaa 120

| ccagccctgt | gcacganaag | tcacgccatg | cccacagcc | tccagtcctg | gctgctggtg | 180 |
|------------|------------|------------|------------|------------|------------|-----|
| gctcggggac | ccgcagggca | ggagggtccc | gggtctcgca | gttccatgag | cccagccgc | 240 |
| ggggaccccc | atggacaaac | ttccggggct | gcacctgccg | gagcagcgtc | tcccaagcat | 300 |
| cggaggncct | ttntcancag | ggctgagccc | tagtggacan | agccgtgagt | ggcaaggcgg | 360 |
| gagtcagggc | tctcggagtc | gtcaattcag | caagaaagcc | cctggcccgc | accttcaaac | 420 |
| tggaagnggg | tggctagggt | gccggangca | nangcccaaa | aagggttaag | cacaatcctg | 480 |
| gctcctgggg | atccccaac | ancagggnaa | cttaagtgcc | cccggnaanc | • | 530 |

<210> 6321

⟨211⟩ 516

<212> DNA

<213> Homo sapiens

<400> 6321

gntttctttg agatagggtt ttgctctgtc acccaggctg gagtgcagtg gcccacaatc 60 acageteact geaacettga acceetggga teaaacaatt etettgeete aggettagag 120 tagttaggac tacaggtgca catcaccata cctggcaatt ttttttttt tttaattatt 180 tttgtagaaa gcagagtctc gctacggngc ccaggacaat ttcaaattcc tggcctcaag 240 caatcctcct gtcttggtct aaacatgttg agattacagg cttgagccac catgcccagc 300 ctgaaaaact tttaagacaa gacattagga attctaaagt tttaaaaagt tgcaaattat 360 aaaacaatag caaaagcaaa aaattatact aacagctggc atatatgatt ttatctgcta 420 atttactttg ggacaatggc agggttaaaa gcttgcntag aactccaatc ngctccttta 480 gcactggtag ggnggaatgt ngccntgnna aaattc 516

⟨210⟩ 6322

<211> 598

<212> DNA

<213> Homo sapiens

⟨400⟩ 6322

gagcaataaa gctgtttatt tcaccagggt gcaggcggac tgagtccaaa aagagagtca 60 gagaagggag ataggggtgg ggctgtttta caggatttgg gtgggtagtg gaaaattaca 120 gtcaaagggg gttgttctct tgcgggtagg ggtgggggtc ccaaggtgct cagtggggga 180 ggttctgagc caggagaagg aatttcacaa ggttaatcgc tcagttaagg tggggcagaa 240 acaaatcaca atggcgcaat gtcatcagtt aaggcaggaa ccggccgttt ccacttcttt 300 tgtgattctt cacttgcttc aggccatctg gatgtataca tgcaggtcac aggggattat 360 gatggtttag cttgggctca gaggcctgac aataagcatg tagttaaggc tgtagttcta 420 ttaatgccat atttggtgta cttcgcaatt cataaaaata ggttttcaat aaatttgaac 480 atacatactc acttgaaaaa agatncttgt aaaaatggct ataaaatatg ggtaatggtg 540 gggtaatatg ggatcctgan ataattcata cctatgancc catttggttc tangttta 598

<210> 6323

<211> 594

<212> DNA

<213> Homo sapiens

<400> 6323

aattgccagg gaccactgga tgattggagt gaactccaaa gtcaaacacc tatgtctcca 60 aatcaacttt caaatggaac ctcgtggagg cctggcccac acacctccag gccgtttccc 120 180 ggagaggccc acctcacccc acttctcata gtaactttag ggaaattgaa aggaaacata 240 tcaaagacca gctcctcatt tgttgaggtt taggattaaa taaaacaaaa caaaaaacag 300 tagcaaaaag cattggtact atctaggtac acatctcctc tcaaaagatg agaatataca 360 ggtgtgtgt agataaagct cagtttccag ccagccaggg tgagctcttg atggctttgc 420 aatttgtgca aagttctgga agttccatac tcctctggct gccgggataa ttccaggttt 480 540 tactggcctc tggttttgcg aantggtttg gtgcatactt gngctcatna ttcttcttct 594 cctcttctct ctttnttttt tttttaattc anggaaaggg aacggcnttt nttt

<210> 6324 <211> 566 <212> DNA <213> Homo sapiens

<400> 6324

ggtgggggca catatttcct caggaaggag cagataagtt cctccttagg cttgtgaata ctttcttgtc acctggccaa atggaattcc aacgatattg tgaagaggca gtgccacttc 120 acagcagaca ctcacaacaa gccacagtca tggggtggtc aaaactccca atctccattt 180tcatgcaaag ctgaatgggc agctcagacc tttaaaaaagt gtcatgaaca cataggtcct 240 cttagtctct gtctacttga caagatctct tagtgtccat gtgtgataga acagcacatg 300 cctacactgt gtggagtgag gggctgccag agccacacgg tgtagccttc tgtccccac 360 ggaggcatgg gtgagaggag agacacaaga cagagaggaa gactgccatc angcttgcgg 420 480 aaatgagctt gagggtttat ggtttgaggn tgcaaagaaa gaagaaaaat aaggaanatg 540 gggttgggga aaaagaacaa cttggttaag ggaagangan ggatgtccng aaaaggnctt 566 aggcaccong aagggtttcc ggangg

<210> 6325

<211> 599

<212> DNA

<213> Homo sapiens

<400> 6325

ccaaatgcag aaaaaaagtc tttattctca taataaaaat aagtctgttc tgtattttac 60
aatatatttc aaatatttcc actatgaagc attcattagt cccacatggt caagaagtat 120
acaacctttt ccaaagacag agctgccggg agtgtgttta ggacacacac ctcgtacagc 180
cgcacttcac cactttctca acctcgtcca caaaggagga gccgtcagtg cattcgaaag 240
agtatttccg ccgcttgctc ctcagcggtc cacagcactg ccctcctgca cacccacctc 300
tgcactctaa tcgggacacc ttcttggttg tttggcaagc agcatagccc tgctgctttt 360

ggtaataatc tcttatcctt tcccctcgac aagagatttc tcgatcacag ctgtcccccg 420
tgtatccact gctgcattca cagtagggct gccccagacc tgaaagcctg cacttcccat 480
gcttgcactt gatcgcctgg catgggttaa acagatcctc ctcttcatca cagaggacac 540
cttcatgggc cctcaagcct tacggttgta ggagaacccc ntgatgggca accaggtgc 599

⟨210⟩ 6326

⟨211⟩ 585

<212> DNA

<213> Homo sapiens

<400> 6326

gtgagaaaat tacaatattt atttacacat ttacatatag cacaatgtat tggtcaagta 60 ctagtaacag gcaattaaca aactaataag aaaatcagca ttttaacaat ttaaacgctt 120 catgacaggg taattcatgt ccaacatatc aaaaacatat ttatagataa ctttagaaaag 180 aaaatacata cttttttga taatcacaag tagcaatgag attttctata ttattttcag 240 tctcacttta naaatgtttt aattgnctaa atttaatcaa ttcatcgatt aaaggaaaga 300 caataaaata gtaaaattac atgtgtttat atataagtgt gtgtgtttca aataacaaaa 360 cgcaggttgt aaactaaaat cactggaagg caaattgaag acaaaagtga tgctggttta 420 agttgtttgg ttcttcacat aaattccagt ttccaagttg ngttttacaa ctctagtaat 480 atccagatng ataattcaac ctgcactttt ttcttctatt cctggtttct cttggtcacc 540 585 cggaattttt ggcttttact ggaactggtt aataaaatag gactt

<210> 6327

<211> 593

<212> DNA

<213> Homo sapiens

<400> 6327

aaaaattgca gtgggtactt tattaagaat ttattttacc atctagccat tcaaaacatc 60

tttacatcaa caaacacagc agtttgacta ttgaaatcat aagcgattta tcttgaaaag 120 gttatatttg taggtggatg caagtatatt ggagaaatat ttctatcaaa atcactggtt 180 ttgttaggag tattttgatt tttctatttt tacgctggga aaaaaattaa aacaagtatg 240 tcagtgttca ttttatggga tagttggctt cactgtgttt gtcatgtttg tccgaattac 300 agctgtttat cttgcaactt taagattaat taaatgcaaa tgtaactctg tgaatcatgg 360 gaatacctgc cagacctctt attaatacct tcacttaaaa ccccctgtgc ctgagagtca 420 ttaatttgct aaaagaaaag tgctaaagca gccctttgcc cacaaacaat tctgcgatgg 480 ctgcccaatt aatcccaaag catctgatcc tccttcangc ctcgnggncc tttgaggcnc 540 caggaagget ccatgatace eggcaaceta aggtagaace caacceaggg tgn 593

<210> 6328

<211> 593

<212> DNA

<213> Homo sapiens

<400> 6328

ggtcttttgc tattttatag tttgcttaag aaacttaaga acaagtgact ggggccgggc 60 gcagtggctc acccctgtaa tcccagcact ttgggaggcc gagggggtg gatcacgagg 120 tcaggagatc aaaaccatcc tggctaacac ggtgaaaccc tgtatctact aaaaatacaa 180 aaaattagcc aggtgtggtg gcgggtgcct gtagtcccag ctactcggga ggctgaggca 240 ggagaatggc gtgaacccgg gaggcggagc ttgcagtgag ccgagaccgc gccactgcac 300 tccagcctgg gcgacagagc gagactccat ctcaaaaaaac gcgtacagca aaaaagggtg 360 420 ccgttacata ggtcattgga tgctatcact ggaatgtctg ttgagaaata aacgttttac catctgtaga cacatgaggg cgctttaagc aggcagcgtg ggatgcancg tnccnaagga 480 aggaaggagg aagaaagctt tgtcaaaagn agcctgaaat tcagcctntt cctatctggt 540 593 tgcgacctgt gcctgcntcg ggtggggggc acccaatcaa ttaagaaaaa aat

<210> 6329

⟨211⟩ 584

<212> DNA

<213> Homo sapiens

<400> 6329

60 gagatgccag gctggagtgt agtggcacaa tcatagccca ctgcagcctg gaacacctgg gctcaaggga tcttcctgcc tcagcctcct gagtagctgg gattacaggc acgtgctacc 120 acacctggct aatcttttaa tttttggaca cggttttgct gtattgccca agacggtctt 180 240 gaactettgg cttcaagtga teceettgee ttggetteee aaagtgtggg attacaggtg tgagccactg cacctggccc gacttcacct ccgacctact gctggggccc ctggtttggc 300 ctctccagct ttccctgcgt ctcacacagg ccctgtgccc tccgcatttc acccctcccg 360 gggagtctgc tgccgtcaac tcacagcctg gcaaaggggc cacaacactg cactgtgggt 420 tgaggtgcat gggcccatgc tacacggccc aactcaggag taggacaagg tgtggcagcc 480 atgecettge etectacaga caaagagtga ecaceceace caattteetg geacaegett 540 ccaagtgaca nggtgcttnt tttaaaaggc agnccctttt tgcc 584

<210> 6330

<211> 594

<212> DNA

<213> Homo sapiens

<400> 6330

gacagccaaa atatttatta ttggttaata taccacttaa aatctctgac ctaaaacaaa 60 tttttgagcc actggaaaag tgaactttct cacagaaata tttaatgttg tcaaaagaat 120 actictgtttt aacaataact ccattaattt attactttaa aagatgcaca gtgctgcttt 180 tacacattaa aatttcagtg acatcaacaa cataactata tgttaatatt ttgaactaac 240 atttcaaatg tagactgacc acatgtttga tttaaagctt aaagaatcaa tgttcccttt 300 360 tgtgaagatg gcttttgttg tcattagatt ctactgattt tttaggaata gagctgctcc acactgaatc cactggtctt ggttgccccc acatggaaca tcaatattgg taaccacacg 420 480 atccctttca gcacttgtgt aaacaggcaa agagatgcac tcatccggag aatatggacc

| acgtgcatcc | tgtggaatcc | agcccataaa | acaagggaca | ctgatgaccc | ctgggagaat | 540 |
|------------|-------------|------------|------------|------------|------------|-----|
| caagcttgat | ttcanaaagt | ggattncatc | aaactacatc | ctttagtacc | aagc | 594 |
| | | · | | | | |
| <210> 6331 | | | • | | | |
| <211> 591 | | | | • | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | -, | • | |
| | | | | | | |
| <400> 6331 | | | · | | | |
| aagacagggt | cttgctatgt | tgcccaggct | ggcctcagac | tccttccctc | aggggatcct | 60 |
| ctcatctcag | tcttacttgt | agctaggatt | acaggcatgt | gccaccaagc | ctggctaaga | 120 |
| gtttaaagtt | ctgacaagcc | acttttgcca | tcaacatcac | tattattatt | gccattattc | 180 |
| ttaaattaga | aatattttaa | tcctttttac | tgctattact | ctgatgatat | gccaaaggtc | 240 |
| atgctcctca | attctgcctt | attttcacct | tttctctatt | tggtttttca | taatcattat | 300 |
| taaaccagct | taacaaagtt | gttctattta | atccaatatc | tactggctga | acaactcaaa | 360 |
| atttcaggtg | gcaaagaaac | tggagattaa | ccaattgcca | ttgccaaatt | attgtaacag | 420 |
| catggaaacc | tggtgtttcc | agacagtaag | ggctccagag | gttatctgag | aagcccggaa | 480 |
| atttaaatat | gcatttcttt. | ganacccttg | gtaccccacc | ctactttaat | ggtaaaagaa | 540 |
| gtcnttacac | catcttagga | ccctgagggg | ctaaaccttg | gaaggctaan | n | 591 |
| | | | | • | | |
| <210> 6332 | | | | • | | |
| <211> 590 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6332 | | | | | | |
| aaaaatacag | tggttatccc | tctatggttt | ggaagtattt | acttttggga | ttctcatgta | 60 |

出証特2002-3046776

tgatcatttc aaattttata cttattcata ctgatttcat gtttgagaaa atttatggtt 120

caaattgtaa tgtttacaaa tctcaacttt taatcatggc aaagtggaca ttcacaacag 180

cttcagaaga gaaaagaaaa tcagtgatat aacaaacatt taagtatcat ttacggcagc 240 cctataagaa ggctagccat aattccctat ttcattctga aagtgatatc ctattagctt 300 tcattccata agcctaggag aaaagtataa aacctaaaat tacctatgtc ttaaacaata 360 ttacacctaa aaagatgatt gtcgtagtag acagactgga attgtccacc aaaataggaa 420 attgataccc aatttatagt ctatgatgaa atttaggctt gaataagtgg agttggagtt 480 ttaatataat gnacttcaaa ctattaaaaa aaccgggtct atggnccagt tgtttaaaca 540 tggccctggt taaagaanct gatacctnta aaaagaattt ttttaggccg 590

<210> 6333

<211> 591

<212> DNA

<213> Homo sapiens

⟨400⟩ 6333

atttttgctc atggaaatga gaaatcccat agcaataaag aagctaatac ccccactaaa 60 ataaaccaga aagtetetee egtetttatt eetettaage eetttgttta gtetatagat 120 aaggatctaa actttttaag ttttaaaatt taaaaatcac ctgctttaat tgccgtaatt 180 caaagtcaga agaacaaaga agaattctga tccaagaagc tccaattatt gaaagctcag 240 gtggtggaaa caacatgtaa ttcagggggc tcagagaagt gacaagcggg agcctgaaaa 300 cacacctttg accggcaaag tgagcagagc tcagtagagg ggaaatagca cagcacggat 360 cctccccagg aagagcccat gctacgaaaa gaacatctag cagcaaatca aagaaagggg 420 cttctttcct gctttagggc tatcacagcc caattctatg tggaaaatcc cttgctcttc 480 ctctaattct cggctncatg gtctgacatc tatttccttt atcttctctg gcagnctatt 540 antaaatcct gggccggccc cgggggttac gcctgnaatc cagcantttg g 591

<210> 6334

<211> 540

<212> DNA

<213> Homo sapiens

<400> 6334

cagcccagcc cttggggccc ctttattgaa acaactcaca gcacagtatt tgagacagac 60 agtgttggcc ggcggaaccc caggaggctg agaagtcgag gttgcggcat ccctcactgc 120 cctcctgggg gaggcatcct ccaagcagac ctgagcggcc ccgggctggg gcgggcgatc 180 cacacacaga ggcgataaga gcacttggaa tcagggcagc catgcagcac tgccctaggc 240 ggggatcccc caaagtctga cagtttgggc atcagtgggg tggcaggtgc cccctcagct 300 gcctttatga gcgcgctctt ccacgtaaag ctgcatcttt aaaatgtccg acgtcatggt 360 420 ttttagtggt atcagcccgg gggtcatgca tgtggacatc ctgctcatcc gccaggatcc aggggaaatc cttgatgacc tggatctttt ccatgttgcn agtggcggnt tntntcgtgt 480 540 gcaccaagaa ttgtgaaggt ncaacctggg ggggttgngg tccaagacgg gattgnacac

<210> 6335

⟨211⟩ 553

<212> DNA

<213> Homo sapiens

<400> 6335

gagacagggt ctcgctctgt tgcctaggct ggaatgcagt ggtgcagtct ccactcactg 60 caacctccac ctcctgggct caagcagtcc tcccacttcg gcctcctgag taactgggac 120 tacaggcaca tgccaccatg cccagctaat ggctaatttt tttgtatttt ttgtagagac 180 agggtettae catgttteec aggetggtet tgaacteetg gaeteaagtg atetaeceae 240 300 ctcagcctcc taaagtgctg ggattacagg catgaaccac tgcacctgcc caaatgacct cattttaact tgattacctc tgtaaagacg ctatttccaa ataaggncac attcacctgt 360 420 cttccccaa acctntcagg tgctcaaagc ctggatcccc aagttctgct gcctnctnac 480 540 atgtggcttt natctgtttc cagccgactn ttggctggcc atgggnaaag tccaaccaag 553 anttaagata ncc

⟨210⟩ 6336

<211> 575

| <212> DNA | • | • | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <213> Homo | sapiens | | | | | |
| <400> 6336 | | | | • | | |
| aaaggcaaaa | aagtaacttt | attgactgct | aatcttacca | tgaaatatct | ataanaaata | 6 |
| attacaaaat | aatgcaggtt | tctttttaca | tactttnggt | atcatcttga | tatgatgatc | 120 |
| ctttcacana | aaggattatt | tacagtttat | gtagatataa | agctcactgt | tgcatataca | 180 |
| aatgtanatg | tgcanaggca | atatatacca | aaacgggtat | actgacaagc | gatagatatg | 24 |
| taanaaatgc | anaataaata | acagctttat | atatttcctt | tcctttttat | ttttaaaaaac | 30 |
| aatttccaaa | tacaaaacat | ggattattca | aagnggattt | ttcctataca | tatatataat | 36 |
| tctgctgcaa | acagnggatc | aaaaagcaga | agtgttctta | gcatgattca | tctttgaaaa | 420 |
| cccatagaac | tattcataaa | tccaattagt | tctattaaac | atattaactg | nattggttaa | 480 |
| cttatcangt | ttttgacata | gagaaatttg | gttgcaggtn | atagaaantt | tatcctccan | 54 |
| tttcaataat | tncccccata | attcngggtt | aaggn | | | 57 |
| | | | | | | |
| <210> 6337 | | | • | | | |
| <211> 587 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6337 | | | | | | |
| aagataagac | cataagctag | agttctggtc | aaattataat | gcctttcctc | cgcctttctt | 6 |
| tcaaatccca | aatgtccaag | gaccaagttc | ctacttcact | catactaact | tttctaaagt | 12 |
| ctctagacct | acgttcccca | acatggtaag | catcagccac | atatggctaa | atttaaatga | 18 |
| | | | | | | |

300

360

attaaaatta aataaagtta aaaacacagt ttcttagcca cattaaccac atttcagatg 240

ctcggcagcc acataggacc acgtgtactc tacaggacag cgcagacatt tccatcttcc

actgcagaca gttctaccgg acagtgctgc tctggactca tttggttttg cttttttaaa

attgcatttt cagacatttt tataactttt tgaaatgtta aatgactgct ccacagagtt 420
attcatttga tggtcacacc tactcaatcc cagaaccaag cattttagtg taattgcaga 480
aatgctctga accaatcaac ctattggcct atttgggcaa attaggaaga aaaaaactat 540
nagccgnttc aaggaccttg gctnaattct ggttacatac agtccca 587

⟨210⟩ 6338

⟨211⟩ 593

<212> DNA

<213> Homo sapiens

⟨400⟩ 6338

accctgggaa gcattatttt ttaatgtacc aaaaatgtct ttgtacatct ctgtattaga 60 tgcttttata aacaacgtgc attatgagaa aaaaatgaaa atttcccatt tttattttaa 120 aaaggtacag agaatagagt ccaaatgaag tctccaaatg acaatatgcc agagaacacc 180 aaattcccaa atctgagtaa ctatctaaat ttctgaggtc tcagcctgga caacatggca 240 aaaccccatc tctacaaaaa acagaaaaat tagctgagtg cggtggtgtg cacctggagt 300. cccagctact cagaaggctg aggtgggaga atcgcttgag cctgggaggt tgaggctgtt 360 gaggetacag tgagecaaga tegeaceaat geactgeage etggaggaea gageaagaee 420 gtotcaaaaa aacaagaaat totgaggtoa gcaattaaat atttgotttt aactttotac 480 taaagtacaa aagaaaaata acacaatttc tatgaaatat caggataagc atagcaataa 540 atctggctta atgnaaatgt agccattttc acatatatta ctggggaatg gcg 593

<210> 6339

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6339

aacacctcaa actcccctca gccccaatat cctggcatct ttagtgagtc aggacaatcc 60

taacctagaa gcatatatgc ctgggagctt cctggcctca aaggaataaa tcttttcaca 120 gcattcacag gactgaaaaa taatataaat aggattccta cagtaaacaa gtattgtttc 180 tgtttcaaaa ccatcctgca agcataacaa tcagctggtc ctaaagcctg taatacgtac 240 acaggtcaca ggcagacagg caggcaggaa aagggatttc ccccagtgca ggctcctttg 300 360 gttctgcctc agaggcacta gaagtctagg ccctgggtta acagcaaccc agagtctgct tggatatggt tctagttgta tgcttcgtaa gtgaacacca aaataccata aaggtagagg 420 agagtgaaca cataacccac ttgcaaataa gaattacctt gcaagattcc tatttttta 480 tettaaeagt etatgegtat gaacatttta ttetataata taaettttta tataaaaata 540 ggncatctta tgactcttaa ccattgggaa gtaaactgg 579

<210> 6340

<211> 586

<212> DNA

<213> Homo sapiens

<400> 6340

gagacaatgt ctggttctat tgcccaggct ggagtgcagt gtcacgatct tggctcactg 60 caacetecaa eteetggget caageaatee teecacetea geeteacgag tageegggae 120 180 ggagttttgc taagttgtcc aggctggtct tgaacacatg aactcaagca atctgcccac 240 cctggtctcc caaagtgttg ggattacatg tgtgagccac cgcttctggt ctattattgc 300 tattatatgt aageteatea tataatgeag aataatttge taaaetgaag agttaetett 360 aacatgaggg cccatgaaag gtagcataga ataatggtta ggagacagta agctatacag 420 caaggetgee tggggetetg ceaettacea getetgtaac ettgggeaag ttaettatet 480 ttttccctac ctactttctt tatctgngaa atgganaaaa gtaagtagtn ccaggttgag 540 tatcccttat ccaaaangat tggganccaa aanggtttaa aantta 586

<210> 6341

<211> 596

<212> DNA

<213> Homo sapiens

<400> 6341

60 aacttttaaa atcagaagta ggttttatat ctttattcag aggtgattca actatagaat aaagcccttt tagcactata aaatccaatg ttttgaattt ttttttttt tgctcagcaa 120 180 tacagttgca ttttacaact tttataatcc tgaagagatt ctcttatttg gagttttttc 240 atgcattcag gtatttagca tgatgtctga tgtggtcagt aataaaggtt gcaatgaagt 300 agtagctatg atcataaccc tagaagataa agagatgata agacatttat ctaccattca 360 ggaacatcag tattaggaac attaaatata tctctaaggt cgtttaattt gcttacaaat agtcataaca ttaaggaagt atgaggaagg tttataataa aatcaaggtt gtcatccttg 420 tactttaaca ttttcactgt cattaaaaga gcagcaaaaa tgtgaaggaa aactaaacat 480 tctgcctagc ttctaaacat agcctaactt ctaaagctgg cattaatatg taaagagtgg 540 596 aagtanenea ttaattaaat atgeeegagt anaetggeat ateaecetgg ggaggg

<210> 6342

<211> 594

<212> DNA

<213> Homo sapiens

<400> 6342

gagatgcagt cttgctctgt cccccaggct ggagtgcagt ggcacaatct tggctcactg 60 caacctccac cgcccgggtt ccagcggttc tcctgactca gcctcctgag tagctgggat 120 cacaagcgtg cgccatgttc ggctaatttt tgtattttta gtagagatgg ggtttcacca 180 tgttggtcag gctgatcttg aactcctgac cacccaggat ccactcgcct cggcctccca 240 aactgctgga attacaggcg tgagccaccg cgcccagcct aaaacgagat ttctatctcg 300 360 tttttcaaac ttataccaca aaattgccga gaaaatccca aaaaaggaaa caaaccctag 420 aacaatagaa agtaagtete aacceaatte caggecaaat caatattaat gagettette 480 atacaatcct cttaatgatg agaagtttac aagangtgga gaaaaataac cggggttaga

| agcagtattc | attggtttaa | agctgaagnt | aaaacttntt | nattctttt | cgatggtaca | 540 |
|------------|-------------|------------|------------|------------|------------|-----|
| taaatctntg | gaaaaattaa | tccaggccnt | tttccaacct | ttttttggaa | angg | 594 |
| • | | | | | | |
| <210> 6343 | | | | | | |
| ⟨211⟩ 585 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | • | | • | |
| <400> 6343 | | | | | | |
| gttttctttt | cctttctttc | tctctctc | gcttctctcc | tctccttttc | tctctttc | 60 |
| gcaataaaga | caggaaaaaag | gcggggggaa | acatggagaa | agcttcccac | ggataatccc | 120 |
| atggagtcta | aaagggacat | gccgagggct | ggcagggctg | ggaggccttt | gggaagctca | 180 |
| gaggagccgc | ggggagccgg | gcgtacgaga | gcaggccggg | actccgctgg | gcgaggccga | 240 |
| gcagggacac | cagctcctca | cccagttgaa | acttgcggtc | actggagagg | agcaacgcag | 300 |
| gagctgatct | ggtttgaaaa | agaggtcaaa | gcactttaca | gctcccattt | cccagcgccg | 360 |
| aggagtggtg | agttttccgt | gttccaagcc | ccactgttct | gcctccggga | gagtttgcag | 420 |
| ctgctttcgg | ggaaggtggc | tggctctgct | cacctgctct | gccctccctg | acaagagcac | 480 |
| ctgctgtgtg | cccacacttt | ggntcccgag | gtctactttg | ctcctnctgc | accccaggag | 540 |
| cttggccctt | ctggctctgg | aggagactta | ggttcagnaa | actgc | | 585 |
| | | | | | | |
| <210> 6344 | | | | | | |
| <211> 501 | | | | | • | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6344 | | | | | | |
| ggtttttgtt | gttcaaattt | cccttttaca | gtaaaactac | tgaggtgacg | gcataccccg | 60 |
| ccaccatggc | aatatcaact | tcctgttccc | cagaaggagc | gattagaaaa | atcaggaagg | 120 |
| agctgggaac | tacagcacca | gagaggtgaa | cttgacctct | ggtggacaaa | gcaaccatct | 180 |

| tggctggtga | ttgaggtggc | caacctggtg | cccaacaaca | gctttgatct | aataaaactg | 240 |
|------------|------------|------------|------------|------------|------------|-----|
| tgttgagtct | gaaaggagtc | ggaaatgtag | gatggaatga | acaagacagc | catctgggtt | 300 |
| actcgggaga | gcacatgggt | tcttggggta | gtcctgttga | ttaacagaga | ttatactggg | 360 |
| atatggaaag | gaaagaacaa | gacaaattan | gcctgccaca | gcacatggca | agtcatctta | 420 |
| nctgcctaaa | atcagcacag | agcacaangg | gaaggagatc | ntgggnaagt | gncacttgaa | 480 |
| actgggnaaa | agnccttttg | g | | • | | 501 |

<210> 6345

<211> 602

<212> DNA

<213≯ Homo sapiens

<400> 6345

| atgccact | ta ttttatttac | taaccttgac | agggactaaa | gaatgaggta | cagaaaactt | 60 |
|-----------|---------------|------------|------------|------------|------------|-----|
| tccagaag | tc tgagtgtggt | gtagaagtcc | aagacaactt | ggagctccat | tattgcatta | 120 |
| ttaagtaga | aa tgaactgtta | tgaaattctc | catattccag | gtttactaca | tagaaaagta | 180 |
| ctatttaco | ct acctcacaga | ggtattgtga | ggatttgtgt | ttataaagtg | cttcaggcgc | 240 |
| cttcgaaga | aa aggcaacata | caagtataaa | ataatcatac | aaatttcaaa | ataaatgaaa | 300 |
| agatgatt | tt ggcacaatgg | gaagggtgcc | tcctatttaa | agaacacttg | gctattggtt | 360 |
| tataaaato | cc cctgacctct | tgggttttaa | aaaaattatt | atttaaaaga | ataaatgttt | 420 |
| ttccattgo | cc aatcttataa | aaattctcaa | tccagctggg | gttatcagaa | tccttggaag | 480 |
| agctcagta | aa aattattgat | gtttgggcaa | cagnctacac | cagcggaatt | aaaggtctat | 540 |
| gngggata | cc caggtnccta | tatticaaaa | ggactnttgg | gaatctggnn | cctnccaaag | 600 |
| tt | | | | | | 602 |

<210> 6346

<211> 603

<212> DNA

<213≯ Homo sapiens

<400> 6346

gtttgttcat ggagggaagt aaggaaattt taatgatatt ccttagataa tacattttct 60 tacctaaaag tggtacaata atgggtttta ctctacctca gtccactatg cagcatgcat 120 actctactta atactaggtt gtgttcctac agttagttaa aaaaccaacc agctggtagt 180 attitttag atccaaccta agaaagacag tgtggtctag tgtagagggc actggctttg 240 gagtcagatg ggtctaagtt cgaatgctgg ctctgctgct tggaaggtgt gtaactttag 300 gtaagttgca taacttctct aagcctcagt ctccgtcacc ataaaatggg gatatctatg 360 420 tatcttgcag agctgatata cggttatgcg ttacatgtgt catacagagg caaagtacat gtcgaaagta gatgtggcct gtgaataaag tggtanggcc aattttacac cgatgggtaa 480 gctcacaatt aggaaacatg aataacttct tttggagtaa tatatatnta taatggaagg 540 tcagagttta aataanggat tcccttcaat catggttctt taanggggtc atcatggacc 600 cat 603

<210> 6347

<211> 590

<212> DNA

<213> Homo sapiens

<400> 6347

60 gagatggagt ttcgctgttg ttgcccaggc tggagtgcaa tggtgcaatc tcagctcatc gcaacctctg cctcccaggt tcaagcgatt ctcctgcctc agcctcccga gtagctggga 120 ttacaggcat gtgccaccac atccagctaa ctttgtattt tgagtagaga tggggtttct 180 ccatgttggt caggctggtc tcgaactcca gaactcagat gatcctcccc cttggcctcc 240 300 caaagtgctg ggattgcagg tgtcagccac catgcccggc ctcctctgtc acttttatag ccatcctctg ctcagaggaa agagctgaca cctctctgcc cagtctcgag gccccagtcc 360 acactgtota caactatota cagocatott catacotaat gocaaaagag gotococaca 420 ttagttaacc ctcggagtga ttcactctaa atttggccga gcacactaga gacaaagaaa 480 540 cacaaaccca cccagaaata aagtttcang gccatccttc cctttccacc aagtaaccac

| cntgnaggaa | acttnttttc | cttggcctaa | nccttttacc | agttcacacn | | 590 |
|------------|------------|------------|------------|------------|------------|-------|
| <210> 6348 | | | | | | |
| <211> 583 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6348 | ٠ | | | • | | |
| cttttatttc | atggatctgt | ttattccatt | tattagtaac | agtgcatttt | ttcacacagt | 60 |
| attctatttt | acttaaactt | aatgcatatg | tagtaagaaa | gatttactat | cccaactagc | 120 |
| ctctcagtat | ttagatgagg | atagaacaga | tacggngtaa | cacgcctctc | cactgcttac | . 180 |
| tgtgtgtacc | aagaaggcag | aaagcagctc | acccaagcct | aacctggccc | tgtctttttc | 240 |
| aggcttctca | ggatgcccac | agcacatact | ggggggatgg | ggacactatg | gtgcactcag | 300 |
| gcagtggcaa | gggggcaata | cgtggagtca | ggatggagga | acactgggtg | ccaagacagg | 360 |
| aggggggcct | tggcaaccat | ctgcaatgca | tggggcaggg | actatctgga | aggactgcag | 420 |
| ggatcactga | aaagctgtgc | caatgcatta | gccatgaaac | ctaagaaact | tcagacatgt | 480 |
| ctcctctggt | taccaagagt | tgcattatct | tggggacttt | ttgatttcag | gccattcgga | 540 |
| attatggcag | ccattgntcn | naggataanc | tttggnnaca | aaa | | 583 |
| | | | | | | |
| <210> 6349 | | • | | | | |
| <211> 594 | | | | | | |
| <212> DNA | | | | | • | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6349 | | | | | | |
| ctaaaatctt | gcactgtgaa | cagcactctt | tgtaacttgg | aaactcagga | gcctttggaa | 60 |
| agtactgctg | cagtttgctc | caagcctctt | tagaaacaag | ccttctttca | ttttcagata | 120 |

tgcataactc accatgtgga cacagaatat cttcattaaa atttaatccc tcctcttctt 180

ttctttcttc ctttgattca tctttattta aggtgctacc gttcatcttt ccgttgcttt 240

| gttctgcatc | accatcttgc | tcatccagct | gttcaagagc | tagctggcgc | caactccgca | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| aggaggactt | ccccacccaa | aatccatcgc | cctttactgc | tgctttcagc | agattattaa | 360 |
| cagttttata | atcttcattt | aagttggttc | ttcagacgca | atatgcgaca | acgttctact | 420 |
| acacattcct | tacacanggg | cttttacagt | tagccttgga | cctcctccat | attactatag | 480 |
| gaaangcaac | tggatatcag | aaatcctctt | cataatggaa | atttaatccg | ggngaaactt | 540 |
| ggcattggga | cnccaggcaa | ccgggatatc | aaaaggttng | gaaggggggg | atca | 594 |

<210> 6350

<211> 190

<212> DNA

<213≯ Homo sapiens

<400> 6350

| gttttgaaca gcaatgagat ttattttttc agcttttatt | ttaggttcag ggtacatgtg | 60 |
|---|-----------------------|-----|
| caggtttgtt ataaaggtaa acttgtgtca caggggtttg | ttatacagat tatttcttca | 120 |
| cccaggtact aagcctagta tccaatatta ttttttctga | tcctctcct cctcccaccc | 180 |
| tgtgcaccct | | 190 |

<210> 6351

<211> 525

<212> DNA

<213≻ Homo sapiens

<400> 6351

| gagacaga | agt | tttgcccttg | ttgcccaggc | tggagtgcaa | tggcgcgacc | ttggctcacc | 60 |
|----------|-----|------------|------------|------------|------------|------------|-----|
| acaaccto | ccg | cctcccaggt | tcaagcaatt | ctcctgcctc | agcctcctga | gtagctggga | 120 |
| ttacaggo | cat | gcaccaccat | gcccggctaa | ttttgtattt | ttagtagana | tggggtttct | 180 |
| ccatattg | gag | gctggtctcg | aactcctgac | ctcaggngat | ccacccacct | cggcctccca | 240 |
| aagtgctg | ggg | attacaggcg | tgagccaccg | tgcccagcct | taaccttaca | tttctaaagc | 300 |

| actaagaagt | ttctagattt | gagttaacac | tattatctct | tgaagctcat | ataccctacg | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| aggtagacaa | tgcagataga | tacagngatt | ctcattccac | acgtgaagaa | actgattttc | 420 |
| agagactaat | ttgcccaaag | gncacacaac | aaattaaggg | anaagccaaa | cttggaccca | 480 |
| tgnntttcaa | gggncaagtt | aanacntttt | aacctggcct | tttgg | | 525 |

<210> 6352

<211> 559

<212> DNA

<213≻ Homo sapiens

<400> 6352

| agagtgtcac | tgatgcttta | tttacatgcg | tcaccatctc | ttttacaaac | tagattacgg | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| ttttaagtgg | aatacacaag | gcaatatcta | caaacaccaa | ggaaagttaa | gtactgcatc | 120 |
| tctatttcat | ttggaaaggg | gaagattccc | aaatcaaact | ggttttgatc | cttaagaaag | 180 |
| gcggcagagt | taattcatgg | caacatatgg | ttagacaaaa | tcctcagtaa | gaatgccata | 240 |
| tgatagtgtt | cgcattgaaa | gaaggatgag | gtgcttcaaa | tcaaagtctc | aactgcttga | 300 |
| ctctcaggtg | tttaaatatg | gccacacacc | atatttagtt | ctagattata | tgggatatga | 360 |
| gcaaggaatt | gaaacagata | agatagtttt | tacagatact | gtatacagat | tttttttcc | 420 |
| attcatgcaa | ctttttctt | aaaaaaagtt | aaacatgtga | agcccaaatg | cccaatacat | 480 |
| tttttaaat | attaactaaa | ttttctgggg | cctccttaca | attggtacct | tttccctngc | 540 |
| cataangggc | tgggacaag | | | | , | 559 |

<210> 6353

<211> 535

<212> DNA

<213> Homo sapiens

<400> 6353

gagacaaggt cttgctctgt cacccaggcg ctggagtgca gcggcaagat catggctcac 60

tgcagcctca acctcccagg ctcaggtgat cctttcacct cagcctcctg agtagctgga 120 aaaacagaca tgtaccacca tgcctggcta atttttgtat gttttgtaga gatgggagtg 180 tcaccatgtt gcccaggctg gtcttgaact cctgggctca agcaatccat ccgcctcagc 240 ctaaatcttg atctctgcca atagagccaa acgtttttaa aaaggcaaaa atctctctat 300 360 aggtaaaagt tttatttcaa tgataatatt ctcaaacatt tcttaagaaa tgtcttcatt ttctaagaaa tccaattact gnctcatact tccaggattc tccaattttt tttttcagga 420 tattatagge cateaattte catacgacte ceacacagtg gtggnaacea aggtggnttg 480 535 gggacntgna agaaacctta gnccccaatt aaaagttggg cgggacangc agnca

<210> 6354

⟨211⟩ 558

<212> DNA

<213> Homo sapiens

<400> 6354

gcaaatcatc agcgctcatg tttatttata aagttacatc ctaaaagtga ttcgaacaat 60 aaatagttat aaagaagatc tgctgcccta ccctctgggt gtgaggcctg gctgtgaatg 120 gatggcctgt caatcctggt tgcgatggtc actgtgaagg ccccctctgt gtccggcagg 180 taggtggagg gcacaacctt gtagggcccg caggcaggag gcagagccgg ctcacctcct 240 gggcgtagcg atgtggcacg cagctcagca gcggctcctg cagcagcagt gggggtgcgt 300 cctggctcct tccaccctct gggacctgga agatatggaa gccgatgggg tggaactcgg 360 tgtcactggg ccggcagtgc tgatgcagag tgatgcggac gcagcgagct gcacggtccc 420 ccactccccg caagcagggc ttgccccggg ggtggtgttc tttggncact ggccttatgg 480 cgcttaagga aactngnccg gtagaaaaag acttggagca nggacttccc ctggngcgtt 540 ccttaaggaa gggcttgg 558

<210> 6355

⟨211⟩ 534

<212> DNA

<213> Homo sapiens

<400> 6355

gcaattacaa acattttaat aaaatggaat gagcttttta attgaagcta atatgaagtc 60 taatteteat ggacagcaaa aaaaaaaaaa aaaaaaaaag tetattagat caattateac 120 cttacctttt tgcacagaaa tcttattgng aagtcaccat agagtcaata gctaaaattt 180 taagactttc tttggccttc tgatattaaa caaattattt acaaactgng atcagtaatt 240 cgnggatatt ggtaaaatga tncaattttt tgttgttgtt gttaagggct ttccattaaa 300 aattgtaaaa caactttgta aggctgtaca gggctgtaaa ctactttgct aatataccat 360 gggatgcaga ggaaggaata atagaccttt tttttaaggc taaagttatc aatgttatag 420 atgcattcct taaaatcatt atgatttata cccaaaggga cctttnccat taaatcccct 480 gggtnctaca antttcaaag nnaaaaaatt aacctggatt ncccttagtn tttt 534

<210> 6356

<211> 550

<212> DNA

<213> Homo sapiens

<400> 6356

cagtttgaaa tgttttcccc ctttattttg tttttcaaat tacaaaagca atatatgtga 60 acaagacaat gcaaaggtat tcagaaaact tattaccctt ctccaccaag gtaaccaatg 120 aatgttaaca ccttcgtgtg tattcttcta cacttttcta tgttcatata aacatccaca 180 tgcatatata cacacagg agtttttact ttttttaaaa atagaatcgt atacattatt 240 atgaaatttt ccctttttac aatatatacc atgaacatcc ccacaaatta gcaaaattct 300 agetecetea tecceageea aatttaetaa eteacaeatt tgtggtatea eeegtgatte 360 agteatttat gtatttttet tittitggit tieettitee etaeaeeeet gaeteeeeea 420 taacctacct gcattaccca ccttccttca agtcaatgca tactcttcta tacttttctt 480 catgenentt aaateeaatt aacetttttg gganeeeggt antggtggae aaaceettag 540 550 agnentttgg

<210> 6357 <211> 551 <212> DNA <213> Homo sapiens <400> 6357 gagatggagt ttcgctcttg tcacccaggc tggagtgcag tgatgtgatc tcggctcact 60 gcagcctccg tctctcccag gctcaagcaa ttctcctgcc tcagctttcc aagtagctgg 120 gattacagcc tgcaccacca cacccagttg ttttttttgt attttttgta gagacagggt 180 ttcaccatgt tggccaggct ggtctcaaac tcctgacctc aggtgatccg cccgcttcgg 240 300 cctcccaaag ttctgggatt acaggtgtta accaccatac ctgacctctt aatctctttt ttgaatagtt tgttgttagt gtatagacag aaaactgatt tttgtatgtt gatttttgta 360 tcccagaact tgactaagtg aacagatttc ttgatgaagt cttgggtttt tctacataca 420 agattatgcc actgnaaata aagataattt tatttcttct ttatgaatta agnggctttt 480 acttttttt tttttttgg gacaannttg gcctggttgc caagctggaa tggcaagggg 540 caatttaant t 551

<210> 6358

<211> 556

<212> DNA

<213> Homo sapiens

<400> 6358

catgitica actitatica coateceagi ggiggetett etgiacagi gagaaagaag 60 ggggaceea eeaggetat ggagaacag tagaggeagg actgaacegt eageaaagat 120 taaaaggatg acetgagget ggeaaceaca aaaceaagaa geeageggg getgeeett 180 eeaagtetea eeaatgaee aggeaggti eeagageea aaggeeeaaa agtgeaatte 240 eeaaaageea aggietggga geeateaagg ageteeeag gateeaggg geteeagagg 300

| gcaagggtgt | ctttgatgag | cctgcgcatg | gtggtggtga | ctgaggtgcc | cagggcatca | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| gtgatctgga | aggagatctt | gtacaggtag | ggctgcacgt | cccgcaagcc | tgtgtcaaac | 420 |
| acgttatcca | ccttcgactg | tgtgggcatn | ttgggcaaag | tctnatgccg | attcattaac | 480 |
| ttcacgatgt | tgatgancnt | tttgcaaaag | tttttaccac | nttttcccgg | naaatttgcc | 540 |
| gttcttgttc | cggggc | | | | | 556 |

<210> 6359

⟨211⟩ 538

<212> DNA

<213> Homo sapiens

<400> 6359

| gagacagggt | cttgctctgn | cacccaggct | ggagtgtagn | ggtggagatc | acaggettae | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| tgcagcctca | acctcctggg | ctccggnggt | cctcccacct | tccacctcct | gagtagctgg | 120 |
| gaccacaggc | atgtgacacc | agctaattta | tttgtatttt | ttttaagaga | tgaggtctca | 180 |
| ccgngttgcc | caggatggtc | tcaaactcct | tgggctcaag | cgatcttccc | gccttggcct | 240 |
| gccaaagngc | tgaaattaca | ggcatgagcc | actgngccta | gcctaggaaa | tttcaaatta | 300 |
| tatatgngng | tcacgttctg | nttctcttgg | acagtgctga | tctagaagaa | gaactgttac | 360 |
| taagagtgag | ttaatggtac | ttgggaatag | ctttatgatt | caaatcattt | ccttgnaaat | 420 |
| ggtcaaaaat | tgtaagggaa | ttttattaaa | taaatggntt | tcnggatttc | aaaaatgggt | 480 |
| naaggggaaa | aaaccttnaa | aaggganaaa | ggctttttna | aggcntgggt | ttagcttt | 538 |

<210> 6360

<211> 555

<212> DNA

<213> Homo sapiens

<400> 6360

aaactaacgt ttatttaaca acctacctgt atgggccagg catttatgct gaggaaggac 60

aaaggagatg aagcatgctc cttaccttgg gaaacttaaa gtgtagtcag gaggagaaac 120 agaatattgc aggttgaaaa tacaggaagt caaaaaatta acaagagtaa ataggaaaac 180 tggtctaaca gttcacatat tgtactggaa aaaagagagc acagatgcag aaagagtaat 240 taggtgaaat gaacctgtta tcttatttgg aaaaatgagt ctctgaagat gtaattaagt 300 taaaggtoto aggatgagat gacactggat tatocaggta gatoccaaat ccaatgacaa 360 gtgtccttac agaaaataca cagagtgagg tcagagagat gagaaggcca tgtaaagaca 420 caggaaaaaa ctggagttat gcagccacca gacaaggaat gcctgtagcc ccccaagctt 480 gaagnaacct tggaccaaaa tttccnttna agccnttgga gggaccacgg tttgattttg 540 555 aaataggatg cntac

<210> 6361

<211> 549

<212> DNA

<213> Homo sapiens

<400> 6361

attcacagca tacttttatt taccaaagta catcgtacat tatacaaatc ttaattacat 60 ttacattata catttataat attaaaattg tgcgagtagt cttcaaatat ctgacaactt 120 tggggtcagt gaattattta agaaaaaact cagaagagtt ttgaaaaaagg agcaggtgta 180 attetacaaa tteaatatga ggcaecagtg ggagaagtea attggatgag cacatgaaat 240 attaggagtg ctcgtgaggg ggaagtaaca ggtctattgt gtgcagtgct gggcaggctg 300 catatggaga atgtgttaaa agagcatttg caaacttaag cattacttga agatattaaa 360 cagaatgatg gaagcctggt ctttgattat ttattgctga catatgcatt gcantgatgg 420 cattnatggc ctaangatta agcttacnnt gaattggcca tggacaaggc atgcttataa 480 ataaaaatgc ctgttgttga ttgcccatct tgggaacctt gctagctcaa atcttctntn 540 angcccatt 549

<210> 6362

<211> 551

<212> DNA

<213> Homo sapiens

<400> 6362

60 ggttcctacc tctttaacag aaaacaacaa tgcacttgag aaaaagtgat tctttgggaa gaccttegga ageageatga eagtgaceaa aatgagetea gatggaegte etgeaetgae 120 actgaatgct agagagtcag tcatttcact tgcctgaacc tcctcgtccc cttgtccaga 180 gtgagagacg tgatgttcac atcacaggct tgctgtgagg gccagtgagg aggcaaaagg 240 gataatgcca cacaaagacc aggtgctcaa taagggctgc tgttattact gaagtcttgg 300 360 gctcagttcc agctgtccta ttgcttaagt ctgtgagctg agacaagtcg tgtcaacttt tgggccctct agaacacctg gatagtcttt ggtgggtacc accttgaaaa aggcttgggg 420 480 gtccactgta centtancaa ggggtcactt acttttccaa attcacttac tettatatca gaatctactg gatcgtaaaa ttctttcant anangggcct atancttggc acatttttaa 540 55Î anccctggat n

<210> 6363

⟨211⟩ 551

<212> DNA

<213> Homo sapiens

<400> 6363

60 aatttagttc ctggtcaaac aaattcaagg cctactttag cctgcaaggt cactagctta agacttctga cctttgccaa taacaagcct gaggccttca tatgagggtt ggcaagttta 120 gggtgggacg ttaaaagaga caactgccca gggaacagta gtttacccat taaaagtaat 180 agggtaatgg gcaggcaggt taacagtgcg tataaaaatg tttaaacagc gactgaggca 240 gcacaagtta acctgggaca agaagcatgt ttacttgatt tgaattatag aactatgtat 300 ggctccttaa actccccctt agtaggggct gcattggagg ggaggggtca agaggtctca 360 ttcctgaaaa ctgaaaggac aaactgcata aagnccaagt tgnctaagac agatgccatc 420 tttacatgat ataattcaag tttaagcctt ttaggaaata atncattngg tnaatattga 480

特平11-24803.6

| cttttacaat | acttggataa | ttctattcnc | aacccccaaa | gagccattgt | agccaaaacc | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| ttaatggacc | t | | | | | 551 |
| | | | | | | |
| <210> 6364 | | | | | | |
| <211> 446 | | | | | | |
| <212> DNA | , | | | | • | |
| <213> Homo | sapiens | | | | | |
| | | | | • | | |
| <400> 6364 | | | | | | |
| gcctcggggt | tacnagtcgg | ctgctatagc | tttcagaatc | acactcacac | taccacattc | 60 |
| aaacgcagga | aatgtgagtg | gcagcaaaaa | gaggctttct | tcacagaact | gnctcccatt | 120 |
| ctgatcaaaa | aagaaaatct | ttccaagaac | cctnccccag | gagactttct | ttgattggcc | 180 |
| agaaccaatg | agatgagacc | agtctatgcc | agtcactggg | attactaaag | aattatcatg | 240 |
| aaaggnttaa | gccaatgnta | atacctcccc | taagtgcatt | ggtgcttact | caatatctga | 300 |
| acaaaattac | ggntcttgag | catgaaagaa | gcaggcacag | ggaagactnt | caagttaggt | 360 |
| aaccagtaat | gcctggctta | cttggccaca | gancncaaag | gcgattcttg | gataaancca | 420 |
| agnatngtng | aattcattct | tttaaa | | | | 446 |
| | | | | | | |
| <210> 6365 | , | | | | | |
| <211> 535 | -×- | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | • | | | | |
| | | | | | | |
| <400> 6365 | | | | | | |
| | | | | caatgtnctt | | 60 |
| | | | | tcatacagtc | | 120 |
| | | _ | | atcnccactt | | 180 |
| ttttctaata | taaaataggc | ttacctaaaa | caaacctgaa | aagtttgaac | tntgcaagta | 240 |

gatneagtte tnttteacaa tetaetagaa taateattee etatattatt eaatetgaet 300

ttttagttnc ctcatcttct tttttatcca ttcaaagttt tatgctaaac aaaaactata 360
tgaatagggt caaacctgtt aaaagtgcnc accgttgaag acttcctttc caatttcatg 420
gacatatncc tatcctaaaa tnggaattaa aaattttccc tttttaaaac ccaccgnttt 480
caaatcccgn aattttttac ctcttttaa gnctngggat gggtttttgc tttna 535

<210> 6366

<211> 568

<212> DNA

<213> Homo sapiens

<400> 6366

ctcttgagac agagtttcac tcttgtcatc caggctggag tgcaatggcg caatctcggc 60 ccactgcage ctccatctcc tgggttcaag cgagtctcct gcctaagcct cccaagtage 120 180 tgggattaca gacgcccacc accacacca gctaattttt gtatttttag tagagatggg gtttcgccac gttggccagg ctggtcatga actcctgacc tcaggtgatc cacccgcctc 240 agcctcctaa agtgctggga ttacaggtgt gagccaccgc acccagccac aaatttttct 300 taaagcattt atagctttga gtctcccttt cacacactca actagactgt atgccccacg 360 aaggcagaga ttttcggctg gttcttnctt gntgggatcc tcaacatcta aaaatagngg 420 ctggcatana agtaaaaagt tctataagna ttttggtaaa nggntgaatc atatgctctg 480 taaaaaccng gtttttttat ttccaaaata ntttaataat ngcttaattt tgngccccaa 540 568 aactggggga tttggnaaag gggggaan

<210> 6367

<211> 492

<212> DNA

<213> Homo sapiens

<400> 6367

gaaacatcta aaatgtaaac atcattctta gcctgcagac catacacaaa cagaggttaa 60

gcctgattta gcttcaggct atagtttccc acttccagga ttaaatcacc aaaatggcag 120 tatctgtgtc ttctgtgtct catggttgca tatcatcatt gcattgctct gaagaagctg 180 aaaatgcaga gcaatgggat ccctgacttg actgtgggca gagacagagt aggcaatgaa 240 agtgctgcaa aggccttggg gagagaggaa agtaggctag gacaatggga ctagtcttgg 300 ggaaaaagga cttctctgtg ctttttagct ccagagaagg aatgtaaagc aactttcaca 360 ccatcatctg ggctgtagcg gaacagtgag tatctctgat gaatgatggg ctctatatgt 420 480 ggtgggctgc ctttcagctt ggatcaagtg ctgcaaancc tanagacang nttacccatn 492 gnccntaacc ag

<210> 6368 ⋅

⟨211⟩ 583

<212> DNA

<213> Homo sapiens

<400> 6368

aaccagaaaa cccactctca ggagttgtca cagccatagc accttgacca cccaagtgaa 60 actttgtact cggtatttat acagaaacat aaattgcagc aaacattcta ctcaatattt 120 ctgccttcca gtgccttgat ccgatcctag tttttcccac tactatcctg tcactacttt 180 ttccatctcc tgtagatccc gatgcccttc atccctttta gcgacaatgc attaggcaaa 240 actetgetae ceaacatttt tatettggae ceacacacae taacacaae tgeecateee 300 cttcccaggc ccactccagt gctggctacc ctttaaatta tcttactgtg caatcctaag 360 tggttaataa gtcaagtgat ccctctacat gctcaactaa aatcaagact tccaagaaga 420 aaccgccttc ctccttgctg gttcagaatt attttttggg ccanggatgg tggcttatgc 480 ctataatggc agtattttgg gaagctgang gcaggaggat cacttgagtc caaaagtttg 540 gaacagcctg gggnacatgg gcaggacctg gttttctnaa aaa 583

<210> 6369

<211> 573

<212> DNA

<213> Homo sapiens

<400> 6369

acaggtggtg gttgtacagg caattagtgc tctctgtcag aaataccctc gaaagcacag 60 tgtcatgatg actttcctct ccaacatgct ccgagatgat gtaggtagac tactttttaa 120 tcataggaag ttgctgtctt aaattcttag gattgccatg aaataccata gtgttttaag 180 attteettat eateteagta tgeeteteaa gtagtaeaet aagtetggtt aetgtettat 240 tactaaacat gccattgctt tgctttcccc acttggagaa aaaaacactt ttgcttcttt 300. cataaaaggt gggaaatgaa atttgaatat tataagcata aaccttggag tgtaagcatt 360 tetecaaaat gtgteeetag aatgaatgge agttttatet tettttttge eagggagget 420 ttgagtacaa gcggccattg tggactgnat aatcagcatt gtggaagaga accctgagag 480 540 taaagaacag gcctagncca cctttgngaa tcattggggc tgggacacct ggtctggtac taaaatctca cttgtgggca aanaggncct aaa 573

⟨210⟩ 6370

<211> 580 ·

<212> DNA

<213> Homo sapiens

<400> 6370

gacggtgtca aactctgctt tattggaata gagaatacag gcagcaggaa tcacgcttgg 60 120 tgctggcagc tccaggtccc ctgccccac gggctctccc acttgtctgg atcaggggag 180 acctccactt tgaagaacaa tatggggtgg gagcttccaa tgtgcattct gctaccagcc 240 tcaggattag cagcaagatg ccaacagcaa cagcaacagc aacagcaaca gcaacaaagg 300 actggactcg acacttcagg aaaggacgtg tagaagagaa agtcagaccc acagtgtcac 360 gtgttaacaa cggtcccaca acagcagaca cgacactggt gtgcaccggt tgtaccacct gtggggaagg cttgcaagca caccgacagn ccctgagggg cccggcattc tcactnccaa 420 catgagaaag aattaacaca cacacacaca tgttcacatt ttntgcgang gacagtcaaa 480 540 ttangnncca aagggaggat aaaacatttt agagaacnca aaagcctgtt gccttgccca

| ataggcgtna | ggctggacac | aaaaggctgg | nttggnctgg | | | 580 |
|------------|------------|------------|------------|------------|-------------|-----|
| <210> 6371 | | | | | | |
| <211> 566 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | , | | | | | |
| <400> 6371 | | | · | | | |
| gaaaggagtc | tcacactgtc | gcccatgctg | gagtgcaatg | gtgcaatcta | agctcactgc | 60 |
| aacctccacc | tcctgggttc | aagcaattct | cctgcctcag | ccttccaagt | agctgggatt | 120 |
| acaggcgccc | accaccatgc | ctggctaagt | ttttgtattt | ttagtagaga | cggggtttca | 180 |
| ctatgttggt | caggctggtc | ttgaactcct | gacctcgtga | tctgcccacc | tcggcctccc | 240 |
| aaaatgcagg | gattccaggc | gtgagccacc | acacctggcc | taatgctggc | ttttttctgt | 300 |
| ccttcaatca | tgtcaagctt | gttttcacct | caggtatttt | accaaatggt | .cgttgntctt | 360 |
| gaaattctct | ctgccctgat | cttaaagggc | tgnttcttgg | cattcagaat | tagtactcat | 420 |
| acttcattag | aataagcctt | tttgaaccta | tctttactaa | gtccctcatt | taataatncc | 480 |
| tataataagc | tggaattttn | gcttggttgg | ctatggcaat | cttgnccagt | agaattcgaa | 540 |
| ttcatgagaa | acaaggtttt | gtttgt | | | | 566 |
| | | | | | | |
| <210> 6372 | | | | | | |
| <211> 511 | | · | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens. | | | | | |
| • | | | | | | |
| <400> 6372 | | | | | , | |
| aaagagatag | ggtctcactt | tgctgcccaa | gctaagtgta | gtggcacgat | catagctcac | 60 |
| tgcaaccttg | aactcctggg | ctcaaacaat | actcttgccg | cagacgcctg | agctgacagg | 120 |
| ggcacaacat | catgccaagg | tagcttttaa | atttcttgta | gagaccagaa | cttaccatat | 180 |
| tgtccaggct | ggtctagcct | caagggatcc | tgtggcctca | gactcccaaa | gcactgggat | 240 |

taaaggttcc ctatcttaac tgtcagtatc atggttgtga tgttgtagca tagttttgac 300
aaaatgtttc catcaatgga aactttgtaa aaggtacaaa gaatctcatt tcttaggatt 360
gcatgtcaat ctacaattat ctcaaaacta aaagtttaat gaagactttt tttttttt 420
ttttttgan acagggcttt tgttgnccaa gcttganttc aatggcncaa aaaaacagnt 480
tactggaacc ttgaccnccc aggttaaana a 511

<210> 6373

<211> 572

<212> DNA

<213> Homo sapiens

⟨400⟩ 6373

gttttttaaa catagttgct gtaaacgtct atgggaaata cagtctttat aataggtttt 60 gatagaataa ttgagtaatt ccccccata agtacatttt attgactgtt actgcataat 120 aggcgataaa tetgatgett atttggaaaa gaagtaggea ttetttagat gagetgtget 180 ttgaagactg ttatgaaaag gaataagaag tcagcatagt ggcactcctg gtttcctttt 240 ttggccccgc cacagaaaag atggatgtag taagaaagtt ggagtgaaag agaaagttcc 300 agggagaggg gaggggagct agtagtcatc agctaaaaaa gagaagaaga aaagtgattt 360 taaggaaaaa aaaattaata gaataaaaga tnaaaagagt gattaattet taettteaat 420 ggtaagaata caggtctagc tgcagatcct ttattggtga ctgntttaca catatactct 480 cctcatcttc tggggaaagt tcttggtagt naangcengt aagttctccc nttcaatata 540 tggaaggett tteateegna ggatttntce tt 572

<210> 6374

<211> 575

<212> DNA

<213> Homo sapiens

<400> 6374

gctgctgtat cttttaaaaa agcaaaatca actcacattt aagcaccaac tccatgcaag 60 taacctgaac ggttcagtct ttttgtcatg tatgtggcct ttggttctcc aactacatgg 120 gatotgtgtt gttagottaa aaaatacaga attggoottt caaaaaaaaa taataatota 180 cagcaaccaa taaatagtct caaacaaccc tgctgactgc agctgccttc tgaaggctgg 240 gaaaaggagg tggagataga gcagaaagag gcagggaaag gggacgctgc agctagctac 300 atagcaagga acacgccccc atcatgtcct ccttgctctg tcagaaggcg ggttgttgtc 360 agtotoctga toaggotgoo ttagaaacga ttaaaaaaaa aggaggoagg aagactaaca 420 actaaaaaat gccagcttct tgaaaaggan gggncnnggt ccttgggaac ttcctccttc 480 ccttttttcc aggaactttc cgtaaatcta aaggggtgcc ggggcncaat aggggacaag 540 575 gggtttgncc aagaaatttt gggngcncca ccggn

<210> 6375

<211> 566

<212> DNA

<213> Homo sapiens

<400> 6375

gatetgattg gecaecttet ceaattette ttgeaactgg gttgaagaeg tatgageaeg 60 ggcaaactca tttaatgtct gccaagcact tttgagagag ctaataaaac cctgcttcaa 120 atcagatccc atacgagaga gactctcttt caattctaaa tgaagtcttt ttctgccttt 180 gtgatgtgga atgagaacag cttttaggtc caaatctgga acaatcatag gttctaatct 240 atatgccact ggatcaagcg gatgataaat attgaagaac cctttacagg taggaaggct 300 gtaattctca tctatcctat caactcctcg aatagtgaga aacatagcaa ttggagaccc 360 caaggcaaag aatatctctg gttcaaaatc taatgagttg taagcaacag aaacctgtcc 420 ggcgccaact tcaaaagatc ataattcaca cacacagaag acacgcaagc accaactggg 480 aagtttcctc tttggctcat tggattctga ngggaaggga ancntgcttt agncttctgg 540 gcactttgnt ctgggccttt gganaa 566

<210> 6376

<211> 558

<212> DNA

<213> Homo sapiens

<400> 6376

caaagggagt tttaaaaaaa tttattggct atgtttgatt atccacaaca gaatttccct 60 taattagcac aggaaattga aagttggtta taatttaata tetetgeteg tetteaacag 120 acatactcag catttatact tgtaaataga attgagtttt cattgtttcg ttttctgttt 180 ttgtttcctt aggaacaaga ggatgaagga aatatggtca gcattttaat aacaccataa 240 atccaagata ataagtaatt ctataaagtt ttccagtttc attaattcag aatttcatca 300 tataacttga aatccaattg gcttcctctt tcttagaaac aaaaaccaaa gaaacctttt 360 totgaaagac attattttcc agtattaggc caatttgtcc tcaaattaag tagaatctca 420 acatettgtt gagecagttt gtaaatteea actteattta atgetgetgt ggeaggange 480 ttgcctggaa ctgntggagg acatntttaa caatagtgca aaacccgcgt tcaaaatcna 540 aacaatnccg ggtttttt 558

<210> 6377

<211> 563

<212> DNA

<213> Homo sapiens

<400> 6377

gtttttttt gcttttgagg gaattaataa gatataatta attgtgtctt aacttttgaa 60 agaaattttt agatggaggc aactgggatg tttgtgataa tagataagaa agacaccact 120 gacctgtagt taaattggtt tgaattgcag atattcatta ttgaatttat tcctgttttc 180 tcatacttta gaaaagacac ctgaacaata aatgaatcct ggatagtgta ctgtccttca 240 aacaatgaag tgatattaat acttgcctgc aggagatgca tactacagga gagaaccctt 300 agactatgtc aggccacact atgaacctcc ccccacctgc ctttttctc ctttatgttt 360 ctgttaccgt actaacattg tggattaacg acactgaaat tctgcataat gtgaacagga 420

| taaactattt | ataaatcgaa | aaaaaaaaa | aacaacacag | ggcttctgca | gggaatattc | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| tttcctcaat | attctacttt | ccttaactct | t¢tttgaatt | tgcttaanca | tttgaggctn | 540 |
| cctggcaccc | ttttttcca | ata | • | | · | 563 |
| | | | | , | | |
| <210> 6378 | | | | • | | • |
| <211> 559 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6378 | | | | | | |
| actcaagaat | ttttattttc | agtcttcttt | gtaggaatga | gaaatgggaa | agaattgcat | 60 |
| tctgataaat | agattaatgg | ttaaacaaat | catggcacat | tcaaaccaag | aaattttgta | 120 |
| gccatttgaa | gcttgtagtg | agcagtaaaa | ttgccaacat | acggtgagtg | aaatgaagtc | 180 |
| acagaacagt | attactagtg | tctatcagtt | atgtaaagct | aaccaaaaac | cgtgcattta | 240 |
| catgtgtgtg | tttgctaatg | cattttgatc | aggatcggga | gcactgtatc | aaagcatcat | 300 |
| aagtagactc | ccttttcact | ttttgttctc | caatggctca | gaattgtgaa | ctctttacgg | 360 |
| gcatgtattt | tacagtttta | aaacaattgt | tttttgtttt | ttgtttttgg | tggggtttgg | 420 |
| ggagcagggt | ctcactctgt | tgcccaggct | ggagtgcagt | ggcataattt | ctgctcactg | 480 |
| gaaccttcgc | ttccangtca | agtgattctt | ctggctaanc | ttcccagtag | ctnggantac | 540 |
| cggggggntc | cccttnccn | | | | | 559 |
| | | | | | | |
| <210> 6379 | | | ı | | | |
| <211> 550 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | * | | | |
| <400> 6379 | | | | | | |
| gtccttattc | attgcaaaat | attgggccag | tttaccccta | ttgggttcat | gcagatggat | 60 |
| attttacasa | tataatttta | tatectaase | taaaractee | aaccaacctc | aaaataaaca | 120 |

aaaatgccca ctgcggatat ctgacacctt ccattcacaa gcatctacaa atgagtcgat 180 ttccaactca gtttcaggaa tatcaatgta ggctgtagga accctgatgt agagaaaatc 240 actactgttg aaaaaaagtt gtttgagaat ttcagctcct gaaccaggaa gtgaggtaat 300 gacaacatca ggaagatcca tgtggtgccc ttcagaagac aaagacttct tgcagttata 360 taaaaagtca aaggcagtgg caaaacctgt taaggaatgg ccaattggaa cctcatctcc 420 tggtgcattc tctactagcc agtctttgta gccaaccatc ctgtccatat atttcaagac 480 aantcaaggc actttgcttn tnggcattac aaacagtcca tgcttaaggn gcanattgtt 540 ccataaattn 550

<210> 6380

⟨211⟩ 584

<212> DNA

<213> Homo sapiens

<400> 6380

aaaaaataaa atgttcgcac aatgggagaa aattgcttta agtgttacac cttagccaac 60 agageceaaa eteegtgttt eegttettte tettteggtt tetgetgagg getggtgaca 120 cactggcctc ttgtcagtgg ctgccggcag ggccaggaac agagtagaac ctgcagcaca 180 gctcagtcca gaaagcgctg gcaggccttc ttccaccggc aggccgtgca ccactggtcc 240 300 cggtgctcga tgccatacac cttgcggcac ttcttagcct cccctcgggc tttcctggca ccactctggg cccggggtgg agaagtgacg atcagatgag atttcatcgc aggtgctggc 360 420 tgctggggct cgctgaagct tagcgaccgg ctccggaccg gagagagaga gcaggcggcg gagggggcag cagcccagct gacactggtg tagatgtgtg gtgagactgg gaatctggaa 480 540 ggatggcaga acctgcggaa gacnaggtgc aacccggatt ctagcttaag gaagtgttca 584 aaagtttgcc acaattccca aangcttata cacagengaa nggg

<210> 6381

<211> 583

<212> DNA

<213> Homo sapiens

<400> 6381

| aaaatgtggg | tcatttcttt | attattttat | ttgtattggt | taacaatgat | cagccatgca | 60 |
|------------|------------|------------|-------------|------------|------------|-----|
| agaataaatg | attattgtaa | aatctgcaaa | caatgtaggt | atgtagagag | tcccttcctt | 120 |
| ggagcttgac | cttgtcagac | aggtatagat | gagtgttccg | gggcagccgt | aaaaactgcc | 180 |
| agagactggg | ctgcttataa | cagaaacgca | tggtctccca | gaagcccaca | ttcaaggtgt | 240 |
| ccaaaggcct | ggctcctgga | ggctctggag | gagagcctgt | tccctgtctc | tcagcttctg | 300 |
| ccggttgcca | gcaagtgttg | ccgttcattc | actccagcca | ctgcctccat | ctgcacacag | 360 |
| caaaacagcg | tatcctgaag | tgctcaacct | tatagccatt | attttaaaat | atccggaaca | 420 |
| cacaggaccg | tgggagtggc | tgttggagaa | attttcatga | aggaagaaag | attaccacta | 480 |
| agttttaaaa | tgctagtttg | gttggtttgg | cttggaaagg | angtaaaagt | gggaagtnaa | 540 |
| aatagggagt | ttggggtaag | gngggaaaag | .caaaggaacc | cct | | 583 |

<210> 6382

<211> 586

<212> DNA

<213> Homo sapiens

<400> 6382

| gactggata | c aaattgcagt | ttattaaggc | tccagagtga | gaaatggcac | ttggttctgg | 60 |
|-----------|--------------|------------|------------|------------|------------|-----|
| gcaggggca | g gggcaggggt | gtcagtggag | cccaaaggag | ctgggtccaa | acatgttgga | 120 |
| gggacctco | t ccatcccct | accccaata | aataaagtct | cagctccatc | tcagggtgct | 180 |
| ggtgcaggg | c agggatccct | cactgaggag | aacccagggc | tgctacctcc | ttcatatttc | 240 |
| tccccacat | t ggacctggtc | acaggtcagt | gagcaacagg | gcttctgtgg | tcctagtact | 300 |
| ctgaggggg | c tggggagttc | agggtggaga | gctggggcct | ggtggtggcc | tccccgtagc | 360 |
| cagtcatag | t ccgaggctgc | ccagggcagg | ctcagagtgg | ggcctgcgtt | ggggacactg | 420 |
| tgcgcatco | c aggtcggggc | ccagcctggg | ccacaagcta | gatgtgcagc | ttccgggtca | 480 |
| tcaggtggc | t tcaggccaga | ctnttgcgct | gaatgctgan | gcttaaggaa | ccttgggnca | 540 |

| ccccaaatgg | tgagacaacg | ggtgaaccaa | ccaccngagg | aaacnt | | 586 |
|------------|------------|------------|------------|------------|------------|-----|
| | | | | • | | |
| <210> 6383 | | | | | | |
| <211> 553 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6383 | | | | | | |
| gagatggagt | cttattctgt | cacccaggct | ggaatgcagn | ggcacaatct | tggctcaccg | 60 |
| caacctccac | ttcctggttc | aagcaattct | cctgcctcaa | cctnctgagg | gcctggggtt | 120 |
| acaggcgccc | accaccacgc | ccggctaatt | tttgtatttt | tactggagac | gaggtttcgc | 180 |
| cctgttggct | aggcgggtct | cgaactcctg | acctcaggtg | agctgtccgc | cttggcgtcc | 240 |
| canagtgctg | ggattacagg | cgtgagccac | tgngcccagc | cttgnttatc | tttctgagtc | 300 |
| aatatgtttt | cctgggcata | atccaaatga | ctcaagtagt | tttgcttcat | tttgggataa | 360 |
| tgaaggatgc | caaatntagt | cttacttgtt | ttgtgatgaa | aagaaaatat | attctgcaga | 420 |
| tagctaagaa | gctaactaga | ccccttgtta | cactgaccta | tagatatgcc | ttttacactt | 480 |
| atcaacngag | aagtgancct | gaatcaaaac | tnttgtaact | ggcccngatt | nntgggggaa | 540 |
| naaaacccca | gtt | | | | | 553 |
| | | | | • | | |
| <210> 6384 | | | | | | |
| ⟨211⟩ 576 | • | | | | ٠ | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | • | |
| | | | | | | |
| <400> 6384 | | | | | | |
| gttttctact | gaaacttatt | atttgccatt | aagaattgca | aactatacta | ctaagaatga | 60 |
| | | cctttttcaa | | | | 120 |
| acatatacaa | | ctacaactcc | | _ | | 180 |

tggagcccaa ggaatgagag atcgcaccag ccttccctgc ttccccacag cgatggacgg 240

| gtcaagctcc | gcgatgctca | tgcggcacgg | cgggtgctgg | cagtggaagc | tctcgtccgg | 300 |
|------------|------------|------------|------------|------------|------------|-----|
| gatgaagcag | ccatcagtgg | gctccacggc | tggctgcgtg | gtgtgggggt | ccaggtagat | 360 |
| gagcccctca | ccaacgtagc | cgatgaagta | gtgggcgctg | ttgggcttcc | tccgatgacg | 420 |
| cccagggact | ggggcatcat | gaacagtgct | tagcgtctnc | acgtaggcct | cgttgatgtc | 480 |
| cgtgagcccc | agcgcagggg | aatgagaagt | accaggggct | tcatggcgaa | cggctgttgt | 540 |
| gaccttaagt | tccgcaggga | atccgttgca | ntgncg | | | 576 |

<210> 6385

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6385

acatatagta caatttccag tgtgatgaca tttcaatggg aaaaagattg tgcatttgca 60 ataaacacca tcatccctga gtccacagat aaggtccccg gagaaggggc ttcccctcct 120 ttctcgctgg gttgacgttc ccagcgagtg aagccttttc tggaatgtgt gtacgcaccc 180 tccaccaaga gttctaataa gctaagctta aagcagaaca gtgaaatggc aaaactgtac 240 agagecetga etttacattt eactetgaca gecagggteg gaageaceae atggaaagtg 300 ctgtccataa ctgctcactt acctgctcct tgctgacagc tcccaggatc tggctccagc 360 gagtggcaaa actgggaatt ttgccaaggg aaattactca ggaccgctaa taaaaacgcc 420 ggcttctgca acatgcatat tcccccagcc cccacctnca tcttgcccag ggcagaccat 480 tcattaacta tctgcgggt gaacaaagaa tcccaatcct tagatgtccc aggactcatg 540 579 gctcatgacc cacggaatct aaggcagcac agtggnttt

<210> 6386

⟨211⟩ 570

<212> DNA

<213> Homo sapiens

<400> 6386

gaaaaaaatc atgagtgagt taaatttaaa tatttcaaac atgtaaactc tcaagagggt 60 accatgatta cagggattaa ataacataaa ggtttcctac aaactctaca cctgcttttg 120 ccccttaaat atcaaatgta gttacattct ggtgcaaact taaaagtaat tttcaaattc 180 tgtctgaaca tggtgtctta gtctgcttgg gctgccagaa caaaatacca tagactgggt 240 ggcttaaaca acagaaataa attttctcac agttctgaag gctgggagtc caggattaag 300 gttttgcagg gtttggtttc tagtgagggc tttcttcctg gcttgcagat ggccatcttc 360 tctccatagg ctaacatggc ctctactttg tgtgtgggag agtcagagat agagcaagcc 420 ctcttgtgtc tcttcatata agcctactaa tccccatcag accaggccct tatgatctta 480 aaccctaant acatcttaaa aagccccatc ccgaaacacc atcagactgg agatggaact 540 570 ntaaccccat tccataccct ggagatggag

<210> 6387

<211> 557

<212> DNA

<213> Homo sapiens

<400> 6387

ggctgagaga ttcaagtttg ngctatatag aacactaaca gttactaaag actaggaaaa 60 tttgcaggan aaaggctatt tttaaacttc acaataattc taaaggaagc caaataataa 120 aacttetaat aaatgeeata aettaaetat taeetetatt tgtaeettte acaaggatet 180 aggttcaaaa taagctcaaa acacagcact caccacttca acagcagctc aaagtcaaat 240 ggaaaaactt ggggtatatt ctttggagga tatactagga cctgagaagc aacatgttcc 300 360 tggttggtag gtccacaaaa aatttaaaca tgcagaattt tatggactga caaaaaaaat taccaattta agtgatcaat atattaatgg ttttcagagt agtacccgat atttgatgtt 420 caaggtcatg catgggtatt ttnaattcct taacctagac cgcanggtat aagtcaccat 480 540 tctccctaat ttttgaaaaa tcttaactgg gcaatccaaa tcttgntttc cattttcnca 557 aataatgnga ngacccg .

<210> 6388 <211> 585 <212> DNA <213> Homo sapiens

⟨400⟩ 6388

gagacggagt cttgctctgt cgcccaggct ggagtgcagt ggcgtgatct cggctcactg 60 caageteege ecceecaggt teaegecatt eteetgeete ageeteega gtagetgagg 120 tgggaggact gcttgagcct gggagttcaa gaccagcctg ggcaacatag tgagacccca 180 tctctacaaa aaaaacaaaa aaaatagctg ggtgtggtag catgtgcctg cagtcccagc 240 cactcaggag gctgatgcgg gaggacagct tgagcttagg aggtttaggc tgcagtgagc 300 taagatagng ccactgcact ccagcttcag ctacagagca agaccctgtc tctaaaaata 360 taaagaaaga aaatttaaaa gtaaagaaaa agtggatcat tcggccttta agatgtggna 420 ctgcccaatt agaactttct ccatgcaatg caaattacag ncacttgagg cactgggatt 480 tctaagtnna atttaactaa anacggggac ttgaaacagn ccacaccgtg ggntcctggc 540 tactgggctg gctgaacaca agggccctna ctactcaaaa ggggg 585

<210> 6389

<211> 572

<212> DNA

<213> Homo sapiens

<400> 6389

gtagagatgg ggttttgcca tgatgcccag gctggtctca agctcctgag ctcaagcgat 60 cctctcgcct tggcttcca aactgcttgg attacaggca tgtgccacca catccggcct 120 aaaagttttt aagagtaata agcaaaggta gatgtgtatg tgtgtgatac tgtcatggtg 180 acatttgtcc aaacctatag aatgtgccaa gagtgaacac tgtggactct ggttgatggt 240 gatgcatcaa tgcagtttca acaactgtga cacatccacc cctctggagc gagaggtctg 300 cagtggggag gctatatgtg tatggggga aaagggggtg tatggaaact gtaccttcca 360

cttaattttg ctgtgaacct aaaactgctc taaaaaatag tctattttta aaaggcacat 420 gattcaatta cattttccat caataacaac tgagaggctt gggaatgatg accggtgtgg 480 actggcccgg ccccattacc tggtgcacgt ccttctgnat ccgnatcgtg gtgctggcc 540 cgacacatcn anttggtgag gaagggtggc tt 572

<210> 6390

⟨211⟩ 582

<212> DNA

<213> Homo sapiens

<400> 6390

gtgactgatc ataggaattt atttttaaat aggtttcatt agttcaagtt agaatgacaa 60 taaatgtgaa gacatgtttg tctgggatgt ggttttttt ttgntttgtt tnttgctttt 120 attcagcaaa gcgtactttt tttcccaaaa cataaaatca ttcagcaaaa aaacaaccaa 180 agaacaataa caaaaaaaca gtgcacatgc cacaaagcaa accaaacata gctcagtttt 240 cctactgata acatattttg tcttttaatt ttggcatgtg gaagtcacag aaattcacag 300 acttaatatg cacacccaaa tattctaagt gcttatttag ggagtatctt tatttggaat 360 aaagaattte gagttataaa actgatgget tataagaatg cagettaeta aattggnett 420 cgttcttaca aactggagta atcttgcctt tgagagttga aaatacatat tcatctacat 480 ttctgcagcg agtgggncca cagttaattt tcatcactgg tgggggttgg caanaatgnt 540 cactctttt ctgntgctgg ggctggggct tccntgactt gg 582

<210> 6391

<211> 575

<212> DNA

<213> Homo sapiens

<400> 6391

gactgaaatt aaagtgtatt tatttgcagc aatcctttaa caatgatcaa attttgacaa 60

caagcaacag caattactgc ttaagtgttg cctctagata ggagcggcag atagcaggaa 120 actgtattat ctccaaaaca aactgcaagc cccccacccc cccgaacgtc tgtaatcaaa 180 tegecatete eccaaagtet gattggeagg geagateace etaagataat gaatttatta 240 catttcctgg gttatttaca aaagggggag ggccaatccg gattgtcccc taggtttaac 300 tgtaaattaa caagaaaaaa tggtttaaaa agaaaccacc ctagaccaaa atgttctgct 360 cctctcgcct tccttcttgt tattgcttta aatctttttc aaaaataatt gttctacaaa 420 480 catattttct aaaatagttt cccaaagatt aaatatccct ttccaacccg cagtatattt ttaaaaaagc aatcetteta tgtaateatg aaggattgta aatgggggag aaatatttte 540 cttccnttta aaaactgggt natttttcct tttan 575

<210> 6392

<211> 476

<212> DNA

<213> Homo sapiens

₹400> 6392

agttttgctc aaaatgctnc gtttattgct ctattcaatg accacnagcg aattataaaa 60 agacaccaaa tgtctctgnc tgccgnggga taaatattta aagtcagcaa taaaaacacg 120 tggctccaag ataatacatg ttgccaaaga gtcatgcatg ccctcctgat gggctctcaa 180 cacacgcacg gacatgggaa cacacgcaga gcaacacgca gtgagacttc tgggaaggct 240 ttcccacagt gacacagaaa aatgtctcac gtagatctgg gctgagtccc cacccaaacc 300 ttgagetece etecetece caacagggee tagateetet gggtteteca tgeeceatet 360 gccccctacc ttgccagtgc ctnacaggct gggcaccctc ctgagagcat ctgacaccca 420 gaggecacce tggetgngat geceaeteea acetagagaa etntneetna gntgna 476

<210> 6393

<211> 566

<212> DNA

<213> Homo sapiens

<400> 6393

gagatagtgt gtgactctgt caccaaggct ggagtgcagt ggcaagatca tagctcactg 60 tagcctccat ctctggagtt caagggatcc tcccgcctca gtctccgaag ctaatttttt 120 ttttttttt tttttagtan anacatggtt tcactatgtt gcccaggcca gtctcaacct 180 cctgactgaa gcaatcctcc tgcctcagcc tcccaaagtg ctaggattac agatacgagc 240 300 cactatgccc tggctctttc cttcttaaag aaaggacact ttaaatcact ttctccacac acagagatga atgagcaaca gacatataag ttaggattta tttcagggta cctgaaccac 360 ctaagagaaa acagacacac aaagcaacat cacttgacca ccgtcacact taactaatga 420 gtgtactggg acttnaggct agaacaattg ggctttctat cctctggtcc tttcagaaac 480 aaaaggggaa aaaacnggnt tnaatcctca tttgctggaa attccgggcn ctncagnatt 540 aggataacac ctncaaagtt tttctt 566

<210> 6394

<211> 582

<212> DNA

<213> Homo sapiens

<400> 6394

| ttgatata gggtcttgct ttctcaccca ggctggagt | g gtggtgaaat cacggctcac | 60 |
|--|-------------------------|-----|
| cageetea aceteetggt eteaggeaat eeteecace | c aagcctcctg agtagctggg | 120 |
| tacaggcg gcaccaccat gcctggctaa tttttaaa | a attatttgtg gagacggttt | 180 |
| ctatgttg cccaggctgg tcttgaactc ccgagctcc | a agtgatcctc ccacctcggc | 240 |
| cctgaagt gctgggattc cacaggtgtg agccactgc | a cctggctgca aggctggtct | 300 |
| actgacaa cgtcaggcag tagtccagtc gctaggaca | g acggatectg acceteacae | 360 |
| gagtgggt cacaagggcg ccgtantgcc ccacccagg | a actcacgtct ctcccgtact | 420 |
| tcaaaaga tacgtagcgg atgcccttgc caaagttgg | t gaaanacgtg ggagaacctg | 480 |
| ngcaagcc ccttttagtc cacttgaagg accgggtca | a ggtgaaggct tnaaaacttt | 540 |
| ccactttc cttttnatan acattccaga anggnggnc | c cg | 582 |

| <210> | 6395 | | | | | |
|--------|-------|------------|------------|------------|------------|------------|
| <211> | 544 | | | | | |
| <212> | DNA | | | | | |
| <213> | Homo | sapiens | | | | • |
| | | | | | • | |
| <400> | 6395 | | | | | |
| cccatt | ttat | tcatttattt | atttttgca | aacaatttta | gaggcagggt | gttaaactga |
| ttaaaa | tttc | acaagattga | cattattgct | taaagtgctt | gaattggtta | cattttaaaa |
| aattaa | ıggta | cagattattt | taaataaaaa | ctacaatatt | tttagcaaca | aaataatagg |
| aatgco | acac | aaatacagta | actattttgg | ttatacagaa | atggaagcca | aaaataaatt |
| aatgta | atac | tggaaaacag | aaatttaatt | aggcagaaaa | gtaggaaata | attttccctg |
| acccat | gcca | cttacatgag | ttcattacaa | tagtgctgat | aaatgccttg | accatataat |
| agcaaa | caag | ggcaaaacat | ttagtgcaca | atattttaat | acacgtgaat | atacaaagtt |
| gatcaa | aatg | caatgttgaa | gggataaaat | ccatctgnaa | taaagctaca | ctncaatatc |
| taaaat | agcc | ctaageteea | tttggacntt | ngatcatatt | taggetgnee | ntgaaantaa |

<210> 6396

gggt

<211> 581

<212> DNA

<213> Homo sapiens

<400> 6396

ctgcataaaa tactgtttat tttgtccttt aggaagacta aagtagtcca gctcccctac 60 agcccagtct tgccccacc ctgcactctg tcgccttagt tcctggggac caagcaactg 120 gcatttctca agcagaccct ctccttgttg ctccttttca gtccctggag tctggcttcc 180 caaaagccaa agctggagga gagctcattg ctgaggaagc agggttggag cctgaggaga 240 tgcagaggc ctggaccct cgctggatcc cagaggcca ggggcagaga tgctgggaca 300

60

120

180

240

300

360

420

480

540

544

gggctctagg ggaccactgg gtgactcttg aggggctaga agcagggctg ggtgactttt 360 gctacggtgg gctgcaacac tgtctggctt ctcaaagcgc ttgccgcaga attcacaggg 420 gaagcgcaag gcagccaccg nctctgcatg cttgcgctgg cgccagttca gggaaacctt 480 ntggcggcag gtaaacccgc atatctcaca ctgnaagggg ttttttcag gggaaacct 540 ntgnggatga caaggttctt gtantgcgna agaccggccc t 581

<210> 6397

<211> 544

<212> DNA

<213> Homo sapiens

<400> 6397

aaatagagac agggttetet gttgcccagg ctggaatgca gtgaggtaat cacageteac 60 tgcagcctcg acctcccagg cccaagcaat cctcccact cagcctcccc agcagctggg 120 accacagatg tgcaccatca cacccagcta atttttgtat tttttgtaga gatggggttt 180 caccacgttg cccaggctgg tctcgaactc ctcggctcaa gctatctgcc cacctcagct 240 tccgaaagtg cagtgattac aagtgtgagc tgccatggct ggccaaggct gtcttttaaa 300 aagctaaaga tgtgttggtt caagaccagt ctgagcaaca tggcgagacc tcatttctac 360 taaaaagaaa aaaaaaatca gctggctgtg gtggccatgc ctgtagtcat ccagccactt 420 gaaaggctga agtgggagga tcgcttgaac ccanaanggt gaagcttcag ngaaccctga 480 ttgngccctg gacttcggnc tgggtgacaa tgagaacccg gtttaaaaag ccttgnangg 540 544 gtgg

<210> 6398

<211> 559

<212> DNA

<213> Homo sapiens

<400> 6398

agtgcaagaa atgctgcatc attgaagcac ttgagaatta ccatgaaatc taacaaaaaa 60 tgtcatcaac tcaggagtaa taataaaaaa gagaaacaac cagagaggca cacagattgt 120 tgttttttta aaaggatttt tatactatat taaaaaacca caaaataaaa aagggatcaa 180 tcaacatata tottagaagt cottocaaga gtottggtat gcaacagcca tggaggotgt 240 gacctttttc cttctttct cagcctgcag ttcatttaag gatcaccgga gatgactcgt 300 gctctagttc ttaaaatcaa acttgttctg ccaaatccaa gaccctgaat ttgtccaaat 360 tgtagaaaca tgcttttacc acccgtccac caaaatacct cccattcaag tcaacaaccg 420 ctttaattgc tgattcaact ctctcaaatt ctaaaaatat ccgnactgnt tcatcatcan 480 gggcccanga atcttggaag aaaatganaa cctgatgagt naaaggcttt tgaaatgcct 540 tggaaggagt ttcccnttt 559

<210> 6399

<211> 522

<212> DNA

<213> Homo sapiens

<400> 6399

gagatggagt ctctctgtca cccaggctgg agtgcagtgg caccatttcg gctcactgca 60 atttccgtct cctgggttca cgccattctc ctgcctcagc ctcccgagta gctgggacta 120 caggcacctg ccaccacacc cgaccaattt tttgtatttt tagtagagac agggtttcac 180 ggtgtgagcc aggatggtct cgatctccag acctcgtgat ccacccacct cggtctccca 240 aagtgctgga ttacagccat gagccaccgc gcccagccga aatttatttt ttgatatgtg 300 tactttctta ctttactggg acacaatcac agatgaccta tgtggctgat cttaggtcca 360 cactetneca gaagteaggt tttaacttta geetetagtt etggaaagtt tetggeetat 420 catagatcac agatctatca tagntcgnat ttttaggctg nccagtgggc caanggcccc 480 522 agcaaaccaa ggaccttccn ttagccagat attcnanaag cc

<210> 6400

<211> 570

<212> DNA

<213> Homo sapiens

<400> 6400

cagcaagagc aatgagttca tttttgtttt ctttttttga ttgaggtaaa taaaaaagct 60 ttatccagca acacggagat aanagtctgt ccaacccgac aagttccaga ccccaccctg 120 ccctcacatc aggctcttcc ggtactgact gtgcggggtg gtctgtctga ggtgggagtc 180 240 cggggtctgc aggtccatct gtctgtacag gtctctcagc tccctgacct cctgcagcac 300 cctctttgcc tggctccaat tcgatgatgc ctntcccagc agccgttccg tctccagcag cagctgctct gactcanaat ccggcggaga ccgaggggggg tccttggcct ttcgcttccc 360 atctcccaag tccctgaacc tctgccagaa gctcctgagt ctcctccaag tttccttgct 420 accaggtect ggateeggga caagntgeee gggttgggga gggeaagggt tngggggtee 480 taacccgcac tggaaggttc cggccaangc anattcccnt tanaaaggac tcctcaggag 540 gccaanggcc ttttttgggg ggaaattttt 570

<210> 6401

<211> 519

<212> DNA

<213> Homo sapiens

<400> 6401

cagcctcagt tgggacttta atgccatctt cattctttcc tagtcccttt ttagggagct 60 120 atcccatttt agtcatgatt ttttgattcc tggggctgta tagggaggct gggatagtaa tctctgcatg ccattgttgt aacaagtctc ggccccataa attgattgga atagaagtga 180 tcataggctg aaccgtactt tcttgattat cagatcctag acaatgtaaa atcatggcac 240 tttgatacac ttctgaggcg gtgcctatgc caatgataga aacatcagcc tgggtatcca 300 ctaatcette aaactettte cetgaatagt gaetgtacae aegggtetat cetetgagae 360 420 ctgattagcc caataagtgg cttttcctgc agggttggta cttcaaaccc tccggtcttt 480 ccgtttggtt tccccaattt aacataaggc aaaaccngna ntgggcaatc tattcncngg

| aatggccttc | anggaacant | ggactgaccc | tactggaat | | | 519 |
|------------|------------|------------|------------|------------|------------|-----|
| | | | | | | |
| <210> 6402 | | | | | | |
| <211> 580 | | • | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6402 | | | | | | |
| gaagaatttc | tgcaggaagg | tagtggtgaa | gttgtttttt | ctttacatga | gttgcttcaa | 60 |
| ttttcattcc | ctcctttagc | atatttatat | tgtttgcctg | tctgtacact | gtatcagtaa | 120 |
| atgactgtat | atcatatgtc | aagtctatgt | tgacactttc | tgcattttct | actctccgaa | 180 |
| aaattatccc | aaggaaccac | attgatacgt | aattgttgtc | tttatgatgt | tccttattcc | 240 |
| ctgggaatga | ctggggattc | acatgggcaa | gagtaataaa | ttcattccgt | tccaagtttc | 300 |
| caacaagtac | acggatttta | gattctacta | atccaaccca | ctctagatgg | ttttcttctg | 360 |
| ttgatgcgct | ggcagtcaat | actatataat | gtctatactt | ttgaaagaaa | ttcggtggct | 420 |
| caagtagttt | ggaccaatct | gactttcctt | gaagaatttc | atctgtgact | gcaagacctt | 480 |
| gttaaatctt | ctaccattac | tggtcgagtt | gatgtggacc | cttttncgag | aaatctgttg | 540 |
| ngggaagcaa | gggtgatatg | gcatganatg | atcctattga | • | | 580 |
| | | | | | | |
| <210> 6403 | | | | | | |
| <211> 532 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | • | |
| | · | | | | | |
| <400> 6403 | t. | • | | • | | |
| agataggcaa | taaaacttca | tattatgaaa | gcaatatatt | ccaagtttca | aagatttgac | 60 |
| aagttctgta | gagtatcttt | catcagtaca | tgaaaacttc | caaactgcat | gatcttctgc | 120 |
| caggcaggac | tgggtgctat | tcgctggttt | gaggtcgaat | ccatttcaag | gcatgtcgtg | 180 |
| gtgggacatt | aatggtggga | tggtagaatg | tgcagtccgg | tcttgtacat | tgagtgttaa | 240 |

acctacaatg tittggatga tagaagggac attccatcit citacaagca gggaagtaac 300 ggcagagcig actaciggaa ggtggtgcig giggtgcaac tggtittgga gacagtacig 360 gaattciict actcacatga gigaagggac aatciggitt aatacaciit gcatcatati 420 taccatiig gigaacaaac caacattiit cagcaaatti acaatigggg aangciittic 480 anggngaana aggggigaat ggnaggcaca citatnccca niittaccag cc 532

<210> 6404

<211> 547

<212> DNA

<213> Homo sapiens

<400> 6404

aaggagcaaa aggctttatt gataaatatg cagatatgtc tgtccacagg gacctgctgt 60 ggaggccatg accaggctgc anacctccca ctgcctgggt tacagccagg acatggccct 120 gtgcagaccc tgccacgaca gcccagccgt ccaccacccg cctcatctct gccaattgtg 180 240 ctgggggcag ggagaggcag aggcccgcct caggcttccc aagccctggg gctcacgggt ggttccctcc cttccaaggg agtggcactg tgcccagggg agagccaggg gatgggggca 300 gaggaggag acagcagctg ctccagaccc tgagcagaaa accagagtga gcacagctgg 360 cagcaccaga tgacagatct gggctccagg ggcctcctgg ttggcccttg tggctcgaac 420 ctgcttcggg agacaggcag ggtgagggcc ctgttcgctt ttctctgaca anggttcaag 480 540 ggccntgtgt ggcttgctgn ttccctgggt acccgggaac tggtggcncn taatggcctn 547 naaggca

<210> 6405

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6405

ccaggaaaaa aattaaatct ttatttttaa aaatcccaca aatccataat gaaatcatca 60 tctgaaaaaa aagatggtag ggaacaaaac gtgggataca tttaaaaggc actagattca 120 ttaataccag agccattctg gagatgccat gtaagaaatc tggagttact ctaaatcttc 180 ttcttagtgg tatcagaact ggggagaagg gtccaagcaa agtgttgcct ttgccagtgt 240 attcggatcg aggttatgag gaagagccct tttcctttgt cagtgagttt catgttggtc 300 caccactcca gcgctgagca gctccccgat ggccctgtca tcgtatctca ggacctcctt 360 420 caggatgtgc gttgtgtgct gcccgagcag ggggggcggc ctggcctctg acatcttgaa cttactgnat ctcacagctg ggcctgggac ggaaatcttc cccacagttg gatgctccat 480 ctccataacg anggnccttt gggnaatacc cttgctgatc cttgaagatg aaggaagggn 540 cntgggncca aggaatgcca cagctttgga agcccaaaca gngttttg 588

<210> 6406

<211> 557

<212> DNA

<213> Homo sapiens

<400> 6406

aacagtaaaa aaaaattttt agtaagttcc aattgtgtgt cagaattgtg ctaggcgcag 60 ggggcaacaa taagcaagac agatcaagcc tataccgtct tgaaatttaa gtttagggac 120 cactetetgt caaaggatee agegetggta atatagattg etgaaggeet ttgeettett 180 240 tccaccagge aacagaattt gngtccccgt cactgcttct tcttctgtga aaaatatagc ttcagtttgg tccacgaata cagaagttgg tcagagatat tttctttcaa gcacacaaca 300 360 agcaaaactt ggccaataca caccaatcaa atgcacttcc tttttccctg ggagctcctg ccacatetea aaaacaaaaa acaaaaaggg atcacagate tetttgaaaa teagtggeee 420 ctttagactt tctgngccca aaaagttatg ctttcacctc agcacccagn tttccctagt 480 taatctgaag nttcatgggc ctatgatggn cccaaattnc tggagcttca ganaccccac 540 557 gtnagaaatn ctagggg

<210> 6407

<211> 580 <212> DNA <213> Homo sapiens

<400> 6407

gagatgaagg ttcgctcttg ttgcccagtc tgaagtgcaa tggctcgatc tcggctcact 60 gcaacttccg cctcccgggt tcaaaggatt ctcgtgcctc agcctcctga gtagctggga 120 ttacaggcat gcaccaccag gcccagctaa tttttgtatt tttattagag acagggtttc 180 accatggtgg tcaggctagt ctcgaactcc tgacctcatg tgattccccc cgcctcagcc 240 tcccaaagtg ctgggattcc ttgctaggca ggaccaagca gagattggag aagggggctg 300 ggttggtgct gaggaacgaa agggtggagg ccaatagctc ttgacctctt cctgtgggtc 360 aagaaaagga agggctgaat tgtcatcaaa aaggccaaag aagtaaacag aggaaaccag 420 ccaaaaaaca gaaacttagt accgtgttca agcaggacac agcatncaaa gattancaat 480 ctctgaccat cgcaacccgg gagacagaga acagatggcc cattcaggnc tttttccta 540 acagttaang gcaangnggg tcaancnaaa agggccnccc 580

<210> 6408

<211> 573

<212> DNA

<213> Homo sapiens

<400> 6408

gtcggtaaga aatcaccaat ttattgaatg aaaaacccaa catcaactca gtccctccca 60 cccccatctc ctctctgg cccaggagac gctcaggaca gcagggctga gccctgggaa 120 gggctggagg agagcttggg ggaggtatgg agaatgagaa aaacactttc aaaatgaagt 180 tctgtgcaaa aacttctggg aaggagtgag aggacaagag aaaagctcca aaggggctgt 240 ggggcgcana tggccggct ggggggtgca gagggctgg ctggggccct gtgtcctcaa 300 ccactcctga gaacacggac ggtcaggaat gagggctca gaccccgggt tggtgaggg 360 gaggtgacag ggagggaagg agcctgctgg agggaaacct ggctgggagg atgggtctgg 420

| gcccaggctg | gggcctaagg | agggggaaga | acagatgaag | cggctgatgc | cttcaatgac | 480 |
|------------------------|------------|------------|------------|------------|------------|-------|
| ctgctnttan | aatccacctc | cttttntcgg | ggttcttgct | cangaaaatg | gggggacttt | 540 |
| ctgggctttc | tttggggacc | ccagcattgg | cnn . | | | 573 |
| | ٠. | | • | | | |
| <210> 6409 | | | | | | |
| <211> 503 | | | | | | |
| <212> DNA | | | | | · | |
| <213> Homo | sapiens | | | | | |
| | | • | | | | |
| <400> 6409 | | • | | | | |
| gagacagagt | ctcactcttt | tcacccatgc | tggagggcaa | tggtgtggtc | ttggctcatt | 60 |
| tccacctcag | cctcccagat | tcaagcgatt | ctcctgcctc | aggttcctga | gtagctgana | 120 |
| ttacaggcat | gcaccaccac | gcccggctaa | ttggggtttt | tttttgtcct | tttgtttttt | 180 |
| gtttttgacc | gattctggct | ctgtgccagg | ctggagtgca | gnggtgcgat | ctcagctcat | 240 |
| tgnaacctcc | atntcccagg | ttcgagngat | tctcctgcct | cagcctcctg | agtagctggc | 300 |
| actacaggng | tgtgccacta | tgcccagcta | agttttgtac | ttttagtaga | gacgaggttt | . 360 |
| caccatgttg | gccaggatgg | tcttgatctc | ttgagcttgt | ccaggatggt | cttgatctct | 420 |
| tgagcttgng | atccgcccac | cttggcctnt | caaagtgctg | ggattacang | tntgagccac | 480 |
| tgngctnggn | cagggttttc | ttt | | | | 503 |
| | | | | | | |
| <210> 6410 | | • | | | | |
| <211> 571 | | | | | | |
| <212> DNA | | | | | • | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6410 | | | | • | | |
| caactgtgat | cactttcaga | cagaaaagcc | agcttaaaga | gttaatttac | aagctgcatt | 60 |
| tgggcaaatg | gtgttaaatg | atgaacactt | tctaacgctt | tattcatgta | ctgactagca | 120 |

aagacatttt ataaaatgac tactacctgg gattacaaac gcaataattg tatacattct 180

cctatacttg ttggctagcg gtggttaatg cctctctaag tattgcctac cgcaagaagc 240 tacaacttcc ctacttaaaa aggcccttaa ttactgtgct ggattctctt ttctacaatg 300 tcctgcaaac tatcaagctc acaatggttt ctgttcagca gtttatttct tctctgaaat 360 atcctgttga aatccataat cattttgaca aaacccacac agaaagcaag ccaataattt 420 ccctggcatt tggtaaatgc tgcagaacca tcataaaagc accacatgta aaaataatta 480 ttcaatgnat taagcgctgg ctntggacca nttcctggtg taagcccttt acatggntaa 540 atcattnaat ttcccacanc ntttgaaggg g 571

<210> 6411

<211> 575

<212> DNA

<213> Homo sapiens

<400> 6411

ccttccacta tttgattcct gggagcagtt ttctcagatt cgcatttgga tcccaacctt 60 ggtctggaaa gcaaagccag ctttggagca gcttgccctg cagtctcccc agctgcagct 120 ctccccacct tcctgggtcc cctctggggt cccagccatg ctcagggggc gtccctccag 180 ctggcctctg cctacctgaa gacagcaggc tgccgctgct gccgctgatg atcttcccct 240 tgctacccat gttggccagc ttcgaggtct tcagcgtccc cgtctcggtc aggtcgatgg 300 cgatctcact caggctgcgt gctgcatgga ttttggactt actctgcttt ctgtccagat 360 agaactggtg ttggcttatg gccatagccc agatggactt gatcaatgcc ggacatgcat 420 accacgtgtg cactgcaatg ccgctgtgcc caaacgtcct ccttgtcact gaaccctgcg 480 tgggtcatga acttncacgg aaaacttctt ttctctgaag acangttttc caactgcttc 540 attggaanac tttcttggnt tcactttata anggg 575

<210> 6412

<211> 584

<212> DNA

<213> Homo sapiens

<400> 6412

caccagaact gactttatta aaaaaatgac aaaacaggtc tatacatatt tacaggctgg 60 gagccaggag gctcaggtcc gacagcaggg gccaggctgc tcacttcttg gagagcttga 120 cttgcttgtg cttggggggt gcccacttga ggcagacgga gtccactgtg atgggtggtt 180 tcttatactg ggcacttttg aggtgctcct ccaccagctt gggtgtgaca cagatcacgt 240 gctggccctt ccagtacttg accatattga gggattgcag ggtactgatg atgtcatttt 300 gggtgatact ggtcatctgg ctgaggtcct tgatggacag tgtgccccgg aagtcccgca 360 ggatctccag cagcacccag gaccagtagc tgcggtagct gagcttgccc aggtcagaca 420 gcggcttctc cggggagccc gactgtgctc tccagcttgg agagctcata actgaaagcc 480 540 atgangaact tecegtaace eeeggegttg gtagggggge aaggteagga tgeangneee aattgtttcc atccgggact ccttntcctt gganaantac ccan 584

<210> 6413

<211> 574

<212> DNA

<213> Homo sapiens

<400> 6413

60 ccagtttgat tcgtttattg acaaatcaaa tgaaaaaaat tcacttaaaa gaagggtntg 120 tgatcacaaa tgtagctaac agggggaacg catacagcac cagggaggga gagtgaggct 180 ggacatacca ttacagagag gaggaagaga aaggatggcg cggggggcgg aggaaagaga 240 gcacctgcca aaaatcccac actttccact tntcagctat cactcaatca tttttctgga 300 tagggttaac agctagaaat ggtttaaggg caacatccag gtagtttgtc tggaanatca gggagatgaa gagttggaga gaatgtgggt gtagcatttt gaaggattct ccagcttgaa 360 cctgttgcca naaccctttt catggtgaac tgggagtcag gaagcttaat cctggtctca 420 gctcagccat gaacttgctg tgtgactttg ggtgaatcat tttccctctg ngatcctctt 480 tcctctgntg taaaacaatc aagttggcaa gttctccatg ggttttagcc cttttgcaat 540 574 gccaaccgtt ntggcaacct nggcttaacc aaga

<210> 6414 <211> 583 <212> DNA <213> Homo sapiens

<400> 6414

atatttactg catgtggaaa aatatagttt agtatgcatc ccctggtgtt ttctaagatg 60 tagtttttga aaaatttttg aaatgtatta catttgtagt ttttctccga tataaattcc 120 ctgatgttga acgaagtttg gagcaactgc ttcggataca aaatgtgtac aataagatct 180 gtgatacaag taaggcaggc actacaaccc tctttatgtt tctaatgttt gtcttcaaaa 240 taaaaactct ttttttactt taaaggctta tattggctgg gaacagtggc tcacacctgt 300 tattccagca ctttgggagg cagaggtgta tggatcattt caagtcagga gttcgagatg 360 agcctggcca acacagtaaa accctgtctc tactaaaaaa tacaaaactt agcccgagcg 420 tgatggcaca tgcctgtagt cccagctatt ctggaggccc aggcaggaga attgcttgaa 480 cctggaaggc anaggttaca gtaaaccaag aattgcacca gtgcacttca ncctgggana 540 583 agagttttcc gaatctcant taaaaaaaac ccaccaaacc ant

<210> 6415

<211> 586

<212> DNA

<213> Homo sapiens

<400> 6415

atcatcgaaa taatttattt accactagag caccacaaaa acagacatac atcgtgttaa 60 aatacagcgt aattggtcat caaaatacaa aacagctaat cttatattcc atttttaac 120 catgccaacg atcaaattgt actgctgatt aacacaaaaa taattgctgc ccacttgcat 180 actagcactt caccccttcc ttcccacctc caccccctc ccatggcaat atttacttat 240 gggaaataaa gaccttacag aacccccaaa ttaaaaaaaa aaaacagatt caagagatct 300

taaaatagag catttaaaat attatcagtg cattcatgag gaaagacaaa ataatacaaa 360 acaaaatgtc atcctatctg agaggaaaat gtctgcagaa ataaaagtga tttacacata 420 atagaaaagt ggaagacaaa aaaataatca acacacactc aaatctggga ttgggttaca 480 tncacacaag ggctgnttac tattatggca tnccatctct tgcttttcca gttttaaact 540 tgcaaatcca attcttaatt aatgggnagg aaattccaaa aggaag 586

<210> 6416

<211> 574

<212> DNA

<213> Homo sapiens

<400> 6416

aaggtcagaa ttcgtttttt ttgtttgttt tttttttttc caaaataagc ccagaccatt 60 aaacaagtga aactccaaca aataagtctt ctccaacagc gagaaaaact gtacagttac 120 tcaaagctga ttctgtgaga agagggctgc atacttgtgc aaacggaggc tcttgagcca 180 tgagggcaca tctttcatgc cactgccatc ctcctggaag gtgttccggc tggagccctg 240 ctcctctgtc tgctcactgc cagaggaggc cacgctgctc tggggcgaga gaggtgcgtg 300 ategggegtg gtaaaageag eeegggeeee aageteetet ggaeteggee aeteaceagg 360 gacctggggg cttgtaggga tgagtgacat ggagcgcttc agtgggctag ggtggatttg 420 gcaggggaaa cctgtgtttg cattgctccc aatactgttg atggctgcng gcacttganc 480 tggatggtgg aaagggcccg tgtccanttt ccggggngnt ttgccttgcc agcctgacct 540 574 tgcttcccan ggcctaactt ttgangggcc cccc

<210> 6417

<211> 534

<212> DNA

<213> Homo sapiens

<400> 6417

gagacggagt ttcactcttc tgcccaggct ggagtgcagt ggtgcgatct tggctcactg 60 caacctccac cttctggttt caagcaattc tcctacctca gcctcccgag tagctgggat 120 tacaggcgcg tgccaccacg cccagctaat ttttgaattt ttagtagaga cagggtttca 180 ccacattggc tgggctggtc tcgaactcct ggccttgtgt tccacttgcc tcagccccc 240 aaaatgctag gattacaggc gtaagccatt gcacccagcc aaggtggctc ttcttaaacc 300 ttggtttagt gtcacctaca gatgaaaggt gaaggaggtg agtgcagaaa ggagagggag 360 420 cacagaaagg aaatggggag agaatggagg aagataagga aagacaggaa aggaggaggg aaaagggaag aagatgaaga tagagcgtgc tgtatgangg caaaggtggc anaagaaaca 480 ccangaaggt ggagaattca cttctntnta anangagctg gcttttccaa atga 534

⟨210⟩ 6418

⟨211⟩ 577

<212> DNA

<213> Homo sapiens

<400> 6418

gagacggagt tttgctcttg tcacccaggc tggagtgcaa tggcacgatc tctgctcact 60 gcaacccccg cctctggggt tcaagcaatt ctcctgcctc agcctcccga gtagctggga 120 ttacaggtgc ctgccatcac acccggccaa tttttgtatt tttagtagag acagggtttc 180 accatgttgc caggctagtc tcgaactcct gacctcaagt gatctgcctg ccttggcctc 240 ccaaagtcct gggattacag gcatgagcca ctgcgcctgg ccatgctctt tttaactctt 300 atcaacacca agcccgctac acactcacct agactgcctc tgcctctacc ctccttgctt 360 agcacctttt catcatctag tggtaatccc ctgaaatgct tcccagtgcc tgccaaatca 420 tettatettg ceteaaatee caagtetggt ceetttatet catattttet getteeetga 480 accagtteta agageeeet teaagtette catetgneet entatetace tatgeeeean 540 gangnaccct tttttctggg gaaaaagggg ccattct 577

<210> 6419

⟨211⟩ 582

<212> DNA

<213> Homo sapiens

<400> 6419

gtttcctctc agatttcctt aagcagtggc ttgtggttct ccttgaaaag gtcatttact tecettgata getgtattee taggtatttt attetetetg tageaattgt gaatgggagt 120 tcattcatga tttggctctc tgcttgtctg ttgctggtat ataggaatgc ttgtgatttt 180 tgaacattga ttttgtatcc tcagactttc ctgaatttgt ttatcagctt aagaaggctt 240 tggcctgaga tgatggggtt ttcttgatat aggatcatgc catctgcaaa cagaggcagg 300 ttgacttccc ctcttcctat ttgaataget tttatttctt tctcttgcct gactgtcctg 360 gccagaactt ccaatactat gttgaatagg agtgatgaga gagggcatcc ttgttttgtg 420 ctggttttca aggggaatat ttccagcttt tgcccattct gtatgatatt gctgtgggct 480 tgtcataaat gcctantaat tttgaggatg tctttcaata cctaagttta attgaaaagt 540 ttttaatatg aangggntgg tganttttat tcnaaggctt tt 582

<210> 6420

<211> 468

<212> DNA

<213> Homo sapiens

<400> 6420

60 gaatgcgcag gtcgtggtat ttatttctat cgctctaaag agtattgttt caggaaaaac 120 tctgcaagcg gtgtttttcc tctgttctca caccagcaca acaatcacca acacagaaaa gggcttctgt gaccaaatgt gtgagggttt ttccgccaca caccaagcag tgaacaccag 180 240 ctgggtgttc tccaattcaa tgccagcact atagacccag agatagtatc agatctcaca gctcagttcc caagactgct gcccccaact ccccagacgt cagtcgcaag tccgggcctc 300 tggaacttga gagcaaccag cttcaagttg gggttctcac aactccctct ttgagatcgg 360 420 tgtttttttt ttttttttc agatggaatc tcgctcttgt tgccccccag tggnngcaat 468 ggcncaacct nggntcaccg naacctntgc tcccaggttc aagcaatt

| <210> | 6421 | |
|-------|------|---------|
| <211> | 573 | |
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 6421

gagacggagt ctcactctgc agcccaggtt ggagtgcagt gacatgatct cggctcactg 60 caagetetge eteccaagtt caeggtgtee tectacetea geeteetgaa tagetgggae 120 tacaggtgcc cgccaccacg cccgtcttat tttttgtatt.tttagtagcg atagggtttc 180 accgtgttag ccaggatggt ctcaatctct tgacattgtg atccgcctgc ctcagcctcc 240 caaagtgctg ggattatagg cgcgagccac cgcacccggc caatatatct ttacttctta 300 taagaaatga gtaactttat taattctacc aacagataac attcttcctc tcagagagta 360 atatgcaatc atttcctaac cttattttat tgcgctatat tttaaatata ataaacgtgt 420 caaaaatgtg gtttcgtact ttttataaat tgatatattt acctaattac actaaatcta 480 agaaaatcta tgggcttatt caaacttctc ttctcttctt cagangcaaa cctgnataat 540 573 tccgtgggtt ggttggttgg tttnaanacc aaa

<210> 6422

⟨211⟩ 578

<212> DNA

<213> Homo sapiens

<400> 6422

cttcttttt ttttttcttc tagcatacct ctggtggcag gaaaggttga ttgccacatt 60 agggaaaaat caaagaatct atattagtca aaacaatctt gaaaaagata acttacatca 120 cctgatttca agactactat aaaactacca tgatcaagac atttctgctc atcaaaagac 180 atcactaagg aaaagaaaat gaataagcaa gacatgcctt tgaggaaaaa tatctgcaat 240 ataggtatgt atatgtgaca aaggatttct agtgataaaa tataaaaatg ccctattggt 300

aactgttgat atgaataaca aaaataatga gatttaagaa catgtaaaag attggaacag 360 tcaatttaca aaagaaaata tgtgactggc taacaagcaa atgaaaagtt ctcaacatca 420 gtactcatca gggaaatgca actaacatct tacatctact aacatgacta aaatcaaatg 480 gagaacaatn tcagatggta gtgagcnttg aagagccact ngnactttca taccttgntg 540 ccgggggtgt aaaatggtgc catcgttcan aaactcng 578

<210> 6423

<211> 574

<212> DNA

<213> Homo sapiens

<400> 6423

atcgttaatt taatttgctc aaattttgtt taaaatgttt acatctatat ccatgaagaa 60 tactgattct ttgttttgct gttatctttg ttgaatttta gtatcacagt aacaatgata 120 gttaccaatt tgttataata aaatgagtta agaagtattc tcattttttt ttcttaatgg 180 aagactttac ataagattca caatatttct ttcttgaagt ttgataaaat ttattagtgt 240 ggccatttag gcttcacatt gtcttggtgg aataattttt aattgcaaat tcagcttctc 300 taatcaatat agggatacta aaattttcta ttgctcctgg gtaataattt gtgttttcca 360 420 aagaatttat ttttttcaac taagttgtct aatttactgg cttagagctg tttatgatat 480 tctcttataa ggccttttaa tgtccatatg atccgcagtg atgtctccta ttttattaaa 540 tatactggta aatagtgtct tctctcttat tctgggatag tctaantaga gctttatctt aactaacttt ncaagaactc ttttagttca tatt 574

<210> 6424

<211> 578

<212> DNA

<213> Homo sapiens

<400> 6424

aacaaaaaaa aggaaaaaca aaagcctaaa atctgagttc tagaaccaga gagatttggg 60 aaccataaga totagaatca gaaggagttg agggtggtaa ggtotaaaac cagagaaatg 120 tataaggcaa agtctaaaat cagaagatat ttgaaggctg aattctagac ccagggtaat 180 ttggagtcag atcttgagtg aggaggagct ggaaatgatg aagtctagag ccaagggaac 240 ttacggaatg aggtctagaa tcagaaggca cttgtaagtc agttctagaa ccagagaaac 300 agcagatcac cagatcttga atcaggaccc tggaggtggc accttctaga agttgtgtag 360 tctggaacta gtgagtggta caggtcatga ggttcagaat ctaggagaac tagagcatcg 420 tctggttcta gaagaactgg ttattataag ataaggacag ggtcgggcac ggtggcttat 480 gcctgtaatc ccacactttg ggangctnaa gccggtggat catcttgagg ccagagtcaa 540 578 gaccagneet tenaattgge aaaacceegt ttttetaa

<210> 6425

<211> 569

<212> DNA

<213> Homo sapiens

<400> 6425

cacatatgtt cttgacttgt acagaaaatc ccaaatttta aatgattccc caactcagcc 60 120 agttctatag atgaggccag atcatttttg agaattaaga taagagtggg aacttgttaa aacaaaaatg aaaataaaac ccacctcact cctgtatctc tccctgatta gacattaaag 180 aggtgaatca ctgcctctgg ctgcttcagc cttccaggaa tgaagagcca tccaccttgc 240 ccttctcagc cagccacagg cagctcttct gattcttccc tcacagcagt ggcggtccag 300 cccctccctc ccctgcacag tgcctgagaa agtttcccag gatttcatct ttagctctta 360 ctgatccagt ttctgaagct ttaggctgat tatcaaaaat cttatgttca cttcttcctt 420 caacaaatta acatgtggtt aaaaaaaaat accaccatta gcccatgctg ctttaagtta 480 tttcattggt ggacaagaat aaaaaccagc ccttacactn tgaccncatt tggattaaag 540 569 gttaccaaat tccacnttag actntgggg

<210> 6426

<211> 580 <212> DNA <213> Homo sapiens

<400> 6426

agtatatgtc acgcagcaat ttatcaaaag cttttgttgt gaaaacactt ttcttaaata 60 cacaattaaa agatatgatt aagcacttac aggatgtgaa atatttaaag gtaatacaca 120 ataatcgggt taccaaaagg acgccttcca atttttcttt ctattcattt tgatgttttg 180 ttcttttcaa aacattttct ctcattacat tcattactaa aggccttact ttaaatacat 240 catgctacat tttgttctcc tcttcaaatg ccaatgtttt aacaatttga attctctggc 300 360 ctgggaaaaa gaaaagttat ccacttacaa ggtatacgta ttgacaacat ggatgttaca gtccaaacaa cagcacaaaa tcaaccatgt acatgtaaca tagtgaaatg agtccacgtt 420 ttctacacgc tacaggatag gaagagctgg ctcttaaggc ccagggctca catgattatg 480 cacttgtcaa agcagettet cantggtgtt gggcatetgg ggatttette ttgggettet 540 ggaggcccgt ggtgggcttt ttccttggna attaacaacn 580

<210> 6427

⟨211⟩ 578

<212> DNA

<213> Homo sapiens

<400> 6427

aacaaagctg gcacctacca acacttgtag cgggtgtcat gcacaatatt gagcctgccc 60 atcatgcatt gcaacaggaa ggtggatttg aaaagggaaa agaattaaaa catcccatca 120 cacgtgtaat tagaaaattc atttgaacaa agaagaaaaa ttgttattat gggaacagtg 180 gcatgtaact gtcagcacaa tcaaatcata caatagcaca gtgatcaatt agaactagtc 240 tcaagtgaag aataaaagcc agtttaactg tgtgctggta cactttgtt ctcttaattg 300 ttgcctataa acaaaagtat tttggaagta atttaaatcc acttaattct tttaaaaata 360 atattgtaat ttgttttgtt ttaatctgat tactaaccat ctggtcgttt tgctattct 420

gactttaact tatgaacgcc ttaacatttt ctttatatca ggcacatatt aacttactaa 480 agatatttat tattaaatac taaataattc aatgtccaaa ctgacttaac anntaatgga 540 aacccaacat tcatttcatt cctttgnttt aatttcng 578

<210> 6428

<211> 572

<212> DNA -

<213> Homo sapiens

<400> 6428,

aatggagaca gggtcttgct gttgcccagg ctggtttcta actcctgggc tcaagcagtc 60 120 ctcctcctgc cttggcctcc caaagttctg ttactacagg aatgagccac tgtgcctggc aggaaatgca cattettaaa aagaaacaaa tattatcace ccaaccagte cgaactecat 180 gagacgctta actaatgtta tgtgttgaat tgtgtccctc aaaacgatat gaagtcctat 240 accetggtat etgtgaaata tggcettatt tggaaacagg gtetttgeeg aagtaattaa 300 360 gatgaggtta tactggatta aggtgggccc caaatccaat gactcaagtc ctcataagaa gtaaagatca gactgggcac ggtggctcac acttataatc ccagcacttg ggaggccgag 420 gcaggtggat catgagccca ggagttcgag accagcctga caacatgaca aagtcctgtc 480 tctacaaaaa atagaaaaat tagctgggca tggtgttgca canctgtagt cccagctact 540 572 taggaggttt gattggaaaa acnctaancc gg

<210> 6429

<211> 549

<212> DNA

<213> Homo sapiens

<400> 6429

gagataaggt cttgctatgt tgctcaggct ggttttgaac ttctgagctc aaatgatcct 60 ccctcctttg cctcccaaag tgctgagatt ataggcctga aacactgtgc cccgcctaaa 120

ctcattcttc tgcatgttaa agttcaaagg ctactataaa ggacgtattt taagaaatcc 180 ttccttcttg aataatgtct gccccttgca attttcaaag tactttaaga tcatgagatc 240 tcagttgttt agcagaactc ttaaatctta aattatcttc aattcctaag gtcttgggta 300 cttcaattaa cattccattt aacaaatatt tgtgaatacc aattctgtgc caggttagac 360 caagaggact caaagaagag gaagaaatcc ttgtcttcaa caggtctggt cagctctgaa 420 gattccctga aatgtgacat gtaccgtgac tgttgcattc tggagtagcc actacactgg 480 nntaaatene aaattgggga ggetetteta aggagtneea eagnatttea eeaaggngat 540 cccggntaa 549

<210> 6430

<211> 534

<212> DNA

<213> Homo sapiens

<400> 6430

ccagtaaagt tettttatte ggatttaace taaaatagtt egettgatet etntttgata 60 gagaaatgaa atctccagtt ntatagacta taanggaaaa gtattgaatt tgcatatttc 120 caataaaaga tatttgcttc atgctttggg catntatcat agtngcccaa aagactntgt ccagtaaaca taactgtcac agtactgaag cgcaaactta caaaattgnc tttgngttac 240 cacaacacac acagintita gicagcigac tattcatgit gittgaaaag catgaaaain 300 360 caggittita gcatgcncac ccagtiggaa aaggactigc tcctccggaa acaccattca 420 ttcgctttgg canagctgag agcacctgtg catgtgaaca agcaggtggg tatctcactg gtttctgcag tcatcacttt ccttgatagg taagttttga tnccanccag gggaaaagtc 480 534 caggetttta ceteagettt tteettanat ttngcetttn tnggaanaat ttte

<210> 6431

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6431

aaataatgag aattagttca tgttaggagt gcatggatct atgattccac ccaacactcc 60 cccctcaaga tcttacgggg tagacgccat ttgaagcaaa gggagtgtga tggttgatcc 120 tggtataaca tcaggagctt taaatcccaa aaatgtgggg ttgctcatct tggcccagta 180 gtttgccgct gttgctaagt ttgggaacat tcgtggtgac agctccccaa taatggggtg 240 300 gcaaagtaca ccccaaact caaaatattt ccccaatgcc tttttaacca ttgttttttt tetecteaaa gaetgggate teagacacaa tggeeegtag ageaatggag eeateeatge 360 420 actgatctag aaacattctc acagcattaa taggttgtca tctgtgcttt cttggcaact aacttgactt gcgtagcttg tgtanagggg attcaaagtc tncaaatnga agtgtgaaca 480 540 ttaattette caacceatgg tettgagetg atceaaceta tggetggate tgetttgcaa 588 cttgnttann ngaataagca cttttancat gggnaagnct ttcaataa

⟨210⟩ 6432

<211> 525

<212> DNA

<213> Homo sapiens

<400> 6432

ctgagatgga gtttcactct tgttgcccag gctggggtta aatgctgtga tctaggctta 60 ctgcaacctc tgcctcctgg attcaggcga ttctcctgcc tcagcctccc aagtagctgg 120 gattacaggc acccaccatc catgcctgac taattttttg tatatttacc cgaaacgagg 180 240 tttcaccatg taggccaggc tggtctcgaa ctcctggcca caggtgatcc atccccttca 300 gactcccaaa atgttgggat tacaagcgtg agccaccgtg cccggcctta aacatgcaaa 360 tetgattate teteteect tettaaaaat gtteettttt teeattgeee ttaggtaata 420 ggcccaaatc cacaccttgt gtataggtcc agaagacctt caggcctacc ccagaccctt cctggccctn agccacactc ctgccttgca gttcctntga catgaatgca atcntttctg 480 525 gcttaagggn tttnacctan taagttcact tnaactggaa cgtca.

<400> 6433

caaataaggc taatttattt attacatgga tcctgacctt gagttaagta ttcagaacaa 60 aaataaaatg teecageetg gatagagtga caataettte tetecattte tateteaage 120 tattaaagat tacctgcggc agcattcttt tgttggaact tggttaaata catgttcatt 180 cctttcttaa agtccttatc cccaatgtag tcatgcagca ttcggatgac agatgcacct 240 ttgctatatg atatagcatc aaatatctca tcaacctcag atggatggcc cacactgact 300 tcaataggat ggctgttatc taaggcgtca agctcctggg cacgggtgta atcagcagaa 360 acaaactgag tccaaatatc atactctggg aagcagtggt ctacacacag atattcaatc 420 caggatgcaa aaccttcatt taaccaaaga tgagtccacc attccatagt ancaagattt 480 ccaaaccatt gatnggcaaa gtcatgtccc acaancngga gcancccact ggcgggatga 540 589 agaacaggaa tttttggatc aataagcaat gcanctccta tgttnaaaa

<210> 6434

<211> 593

<212> DNA

<213> Homo sapiens

<400> 6434

aattttttgg gactgagtct cgctcttttg cccaggccgg agtgcagtgg tgctatctcg 60 gctcactgca agctctgcct cctgggttca caccattctc ctgcctcagc ctcccaagta 120 gctgagacta caggcgcctg gctaattttc tgtattttta gtagagacag ggtttcaccg 180 tgttagccag gatggtctcc atctcctgac ctcgtgatcc gtctgccttg gcctcccaaa 240 gtgctgggat tacaggcatg agccaccacg cctggcccaa ctttactgat cttttataat 300 gatctttcta tgttacttat ttagggatat cctttttaga caatcaatat gatccaataa 360

| tttacattta | gtgactcagc | aacatacttg | atctaaatta | tgtcactctt | tatgtgatgc | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| tatttgttgg | tatggcttca | aacaaaaacc | ttaattgggc | ttcacttcta | ataaagatga | 480 |
| attttacctt | ttaatctaaa | aatgacattg | aaaactttaa | cttttaana | attctnggaa | 540 |
| tcattatttt | gnnccaaaag | ccttaaangc | cttttaaaag | aagcctgatt | tnt | 593 |

<210> 6435

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6435

| ggaggtatgt cctgaactt | c catactatta | actagacaca | gaactgcaca | gcaggatgcc | 60 |
|----------------------|-------------------------|------------|------------|------------|-----|
| tgctgtgtgc attccagat | a tagtacatag | ctcagctctc | aaatcagcaa | caaagaagat | 120 |
| aagcacacca ggtccacat | a gcagagaact | tcacattatc | aagtttctat | ccaaagcttc | 180 |
| aaagaagcaa ataatattt | t gaaagactat | gtgataaaag | gatcaatttt | tagaaagttt | 240 |
| catgatctgt catggatca | a tagtttataa | aggacactga | aacttggatg | ttgaggcaat | 300 |
| gtcaaattgc cccaagttt | c taaatgctta | ctcttcattt | ctgtacttaa | tgtggacttg | 360 |
| gatcaaatag ggcatgaac | c _{agcattggtc} | cgtggactgc | attttgactc | gtattggttt | 420 |
| aaagaagttg tcgtttact | c ctcgaggtag | tctcagatct | aattttctct | tggattaata | 480 |
| tgacaactaa tacttgaag | c acttagctta | ctactagagg | aatctatcta | ctggggtatg | 540 |
| ccttatggnc ctaactttt | a tcaaatttt | aagnnttgat | aaaaancn | | 588 |

<210> 6436

⟨211⟩ 598

<212> DNA

<213≻ Homo sapiens

<400> 6436

tattattgct aatactatgg aggggctcag agatgtgagg aataagacaa agctgcttta 120 tttggtgaat ggcagtcatt agtgactttt aaaagagcag cttggtagaa tgtagggagg 180 ttgggttatt ttcttttta cagatnctat ttattaggca ctatataaga ttaaaagaga 240 ctttaacacc tettttaaaa aaaggettta tetettteaa tgettaeaet gaetetttta 300 acaccetttt tatagatgaa aagtgenatt gagagaggtt aagtgaettg tteaageeet 360 tgtataaatt aagtatggac acaggattta acccagttgt gtctgatcct aaagcttatc 420 attttaatga gttgcctcct ctctcattca tggaagccag aatgcaagtg gttaaggagt 480 aataaagaag gtgaatggaa cenggtatag aggactetta aggacagggt ttggccaaaa 540 gtgnaaaggg aaaaaattgg gatgttgctt ttnggtttnc angggaaagg accnttnt 598

<210> 6437

<211> 589

<212> DNA

<213> Homo sapiens

<400> 6437

cagtgaaatt cattcacctt gacatgtgta gcaataatca gtcattttga cctctgtgta 60 ccaatgatag ctaaaatata ttgagcattt tctgtgtatc agacagtctc aactacttta 120 catgggttaa ctcaatcttc acaataatcc tttgaggtac atagtattat caacctactc 180 cgtatgaaga gactaaaatt caaagggatt aagcaacttg cctaaaataa atgttactag 240 gcggcagagt ctggataaga acactacaat ttattaatct attctctgtc tatggatgtt 300 tgggcagttc taattttttg ctatttcaat aaatgttgct aggaataata gtgtataggc 360 cttatggtat atatgacaaa aagtttctct agaagacaaa gaatagaaat actgggtcac 420 aggatataca tatgttccag ttctcataat gaaaatgatt tttgangtgg tttgaacaat 480 tcatgtnttc acaatcgggg ctccatattc ttaccaagac taggactggc acactggtca 540 ctcttaaatg ganttengnt atttaaatte cattttaang gaccecect 589

<210> 6438 ⋅

<211> 553

<212> DNA

<213> Homo sapiens

<400> 6438

gggtttaaaa ataaaagcac ggaccaatga ggtgggaaag actgccaggc tggttctttt 60 acctaggate teagtaatae cagatteeag attecetete ggeetetaag getetgaate 120 caggitagag gictgaaccc cicccccgt ccccaaatgg ggggcattta gittitigtt 180 tcataaatac tgtccaggca actcaaagaa gacaccaagg ttggactctg ttttctttcc 240 tgctcagttt tttgctgctc cagtgtatga attgagattt attttttaag gccctcctac 300 atttatectg tgttgeteag aacgeegaeg ttteecaetg atatetgtee tataetttea 360 420 aaagaaggta tgatcttctg ggatcagatg aattgcttaa gtggttacag tttttgcaag ggtgttctaa ctgatgacag tggggtaaag tgggattcta ttggcctctt gggtncaatt 480 gnatctgntt ctactatgca atttaaaant gcttngaacc ttttccacgg gctaatttga 540 tnttnccaat tgg 553

<210> 6439

<211> 587

<212> DNA

<213> Homo sapiens

<400> 6439

aactgagata aatgtagatt tacatatagt tgtagaaata atacagaatt atcccgtgta 60 ccccttacct agttaccccc aatggtaaca tcttgcaata ttataccaca atgtcacaac 120 caggatattc agatagatgt catccactga tcttactcaa aattcactca ttttccatac 180 agteetttga tigiggiggia gitetgigaa atticateee ateigiagit ticaigiaat 240 catcgccaca gtcaaggcac agaatgcttc acttccatca ctataaggaa cccttgtgtt 300 gcccttttat aaccacaccc acttctctcc tctctcccaa actccatctc taatccctgt 360 taaccactga tatgttcctt acttacacaa ttttatcatt tcaagaaagt tacagatatt 420 gaatcacata gtatgtaacc ttttaggatt ggngtttttc actcagcatt attccctgga 480

| gatcatccaa | gttgtggacg | aatgattggg | tcntttaatg | gttggggang | tagnctntgg | 540 |
|------------|------------|------------|------------|------------|------------|-----|
| gattgatggn | ntcacagttt | äattattccc | ccttgaaggc | anttggg | | 587 |
| | | | | · | | |
| <210> 6440 | | | • ' | | | |
| <211> 571 | | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | , | | | |
| | | | | | | |
| <400> 6440 | | | | | | |
| agtaatcttt | atcccttcag | agaattcttc | ctttaagtct | tgggtgagat | attttattat | 60 |
| ttttaaggnt | tatatatcta | tattgttaga | acaagcatac | tctggcaatg | ttgttcttta | 120 |
| aaaaagcatg | gattgcattt | atatagtgtt | tttttccaaa | aatctgaaga | aattatcaag | 180 |
| agcacttggc | agagataact | tgatgaaatc | aggggaaaaa | attgatgtcc | aacttttaaa | 240 |
| tatacaaaaa | cttgattgac | attctacata | attcaaattg | tgtgcaagat | gttctcaata | 300 |
| aacatttaca | gactgtatcc | ccacaccaat | gtcagaaatt | caaagctggt | cctattactg | 360 |
| atgtgataca | tcaacatcac | aatgtcagct | atcaaaaatc | attttaaatc | tatgtttttc | 420 |
| caacaactcc | agttccatca | atgaaaataa | ttttaaagga | tatcaagctt | ggaaaccata | 480 |
| aaatatttgg | caagcnttgg | ttggttggtt | ngttggttct | tctgnttggc | ctttgaatct | 540 |
| anggaaagnc | nccttantct | cttcaggaaa | a | | | 571 |
| | | | • | | | |
| <210> 6441 | • | | | | | |
| <211> 575 | • | | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6441 | | | | | | |
| cggtacagac | agcatcttgc | tatgttgctc | aggctgatct | ggaactcctg | gcctcacaat | 60 |
| actcctgcct | cagcctccca | catgagctac | catacctggt | aggacattat | ttttaagctc | 120 |
| ccattaggtg | gaaatcaaaa | gacaaagctt | ttagtaacag | ttcttccata | aactagctgt | 180 |

gtaatcttag gcaagtcact ctgaatccca ggtacagttt tctaatctac aaaaatgact 240 ggaaaaaaatt atttctaaga ccctctccac cttaagttat tccactagtg caaaatttaa 300 aaataaagac tcttatggtt tggatgtttg tcccctccaa atctcatgtt gaaatgtgat 360 tcccaatgtt ggaggtggc ctagcgggag gtgtttggt catggaggcg gattcctcat 420 gaatagcttg ggccctccac atggtaaata atgagtctca ctgtagttca tgccaaactg 480 ggtggttaan agcctgccac ctccttttt tttggtccng gtttcccata tgacttggnt 540 ggtacctttt acctttcgcc atgctggaaa aaagt 575

<210> 6442

⟨211⟩ 573

<212> DNA

<213> Homo sapiens

<400> 6442

ggattatctg ttcacttttc tagagcatat ccttcctgag aaaagaatgg atgtgtacat 60 tttgagtcct tctatgtctg tattctgtct tcaaatgtga ctgcaaattt gactgaattg 120 agtagagttg ccgcatatgg ttgtaaagat tatgcactgc aaaaccctag ggggtcattt 180 ttattcaaag tgttttaaaa atgcgaacca aaaccgaaaa gctctagggg atgtcattca 240 ctgcatgttg gtttggattg aatattactt tccagaattt tgaaggcatt ttctcatttc 300 ttctagcttg caatgataat gttaaaaagc ctgacgtcac tgtgatcgtc ttcttttcct 360 cttctttcaa tgtgtactgn tttcttcatc tcccttcacc cacttccatg cttctctctc 420 ctttttctcc acaacttaa aaaaagattc tctttatctc tagcgttcca agatttcaca 480 acaaggtaac ttggtgtggg cattttctca acttttcgca tggactctgg tgggactttc 540 573 aatctggaag acttataatc ntnccntctg ggn

<210> 6443

⟨211⟩ 571

<212> DNA

<213> Homo sapiens

<400> 6443

aaagtctaca ggtaagcaga catttctata catgtcctgg tcactctttc taaagtattt 60 ataattaggt tattgaccat gtcttggata ttgttggcag tttaaataat accctcatcc 120 gtaggtatac acagaaagac tgttttcttt ataacaaaaa atactataaa gaaagagata 180 atggaaataa ggcctataat gaagacagaa tcactaacac tgtcagaatt aactgataca 240 gagaagaaaa gattttttct tggaaaaggc attaattttg cagatcactg ggatactatg 300 tacatctgca aagctaaata gaacctcaga ggtccaaata gggcaatgtc atttcactgg 360 tcagatcaag cccagataag taatcacaga aaaccggaag tacacttttc atagatttt 420 tttaaaaaca ctggctgaac aaaatagtgt ataaattaat gtaagaaagg cactggtagt 480 ggncagntaa tagatactcg gttttttttc tttcaagtgc cactattaat gggtaatttt 540 cctttcttgg ctattaagen cctgnaacen g 571

<210> 6444

<211> 564

<212> DNA

<213> Homo sapiens

<400> 6444

gttttgatgc tgcagagctt gaaactgttt tattacacac cagtgtattc tttctcaaaa 60 agtaactcaa aggaataatg tacctccata tactagactg gaagtgtaat gacacattaa 120 agigtcaccc taiggitcac giaacciaaa iccatticca tiaigacagg acccactati 180 acacctaaag catagaactc agatctgtag atcatggcaa tgactaaaga gtttcttaca 240 gtggcaggca gtactgatcc cacctatgaa acaggataat tgcatatcca ttctacagaa 300 aagaaagctg aggcttagag aagttaaatt actttcccag cttaaaaaaa gaatctacga 360 aatgatattt ctaattcatt agttagaggc ctggaatcaa ggtgccctta gcaatatatt 420 tttggagagc aaagaatact attcccttgg tttagagatg aagaactgag gcttttgagt 480 ggggtanggt tnctaagaag ccacagctgn ttaatgnnca gcacatagaa tggctggcta 540 caggccagac ttntttttca naag 564

| 12107 0440 | | | | | | |
|-------------|------------|------------|------------|------------|------------|-----|
| <211> 574 | | • | | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| .<400> 6445 | | | | | • | |
| attgagaagg | agtctcgctc | tgttgcccag | gctggagtgc | agtggcacat | ctccgctcac | 60 |
| tgcaagctcc | gcctcctggg | ttcacgccat | tctcctgcct | cagcctccca | cgtagctggg | 120 |
| actacaggcg | cccaccacca | cgcctggcca | atttttgta | tttttttagt | agagatgggg | 180 |
| tttcaccgtg | ttagccagga | tggtctcgat | ctcctgacct | tgtgatccgc | ccgcctcggg | 240 |
| ctcccaaaat | gctggaatta | caggcgtgag | ccaccacgct | cagccaactt | ttattcctcc | 300 |
| atttcaaccg | tggagagtct | gatgattttg | tgccttaggg | ttgctcttct | caaggagtat | 360 |
| cttagtggta | ttctctgtat | ttcctgaatt | tgaatgttgc | cctgtcttgc | tagattgggg | 420 |
| gaaagttctc | ccagataata | tcctgaaatg | ngttttccaa | tttgggtcca | ttcttccctg | 480 |
| gcacttttca | gggaccctaa | tcaatcgnag | gtttggnctt | tttacatagn | cccatanttt | 540 |
| ttggagggtt | tngtcaattc | ntttcaaact | ttgg | | * | 574 |
| | | | | | • | |
| <210> 6446 | | | | | | |
| <211> 552 | | | • | | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6446 | | | | | | |
| aaaaccaaaa | gaacaacttt | aataagcttt | tacggcaćtg | caattacagg | aacatcgacc | 60 |
| cataacatgc | aacaaaaatg | attttgcctt | ttggacatat | ttaacagata | aacttgacat | 120 |
| tacaagtaac | agcaacacat | tcccattcta | ctgaagaaaa | caaatgcgat | ttaactttca | 180 |
| | | | | | | |

ggttagaaaa cgtatcttct tactgcaatc tcaagtagca tttagaaagt ttagttttcc 240

cttttctaac ctctaaaaga tgatatgatt tttaatgcaa tcatacacaa ctgttttcac

| attggaaata | atcacgagga | atcaataggt | ttaggctaac | tgactgattg | gttttatttc | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| cattgntaat | ttcaagaggg | ctcctgcagt | attgtggatt | tcagatgggg | aaaataatca | 420 |
| gaccaggagt | aaacggcctt | ggtctttaaa | gtgggggang | gaacatgcag | cggcacacgg | 480 |
| ggcangtgcc | tgacttttgg | aagcccgatg | gccacacacg | gnttgnggna | atagtggtgg | 540 |
| cacggaantt | na | | | | | 552 |

<210> 6447

<211> 557

<212> DNA

<213> Homo sapiens

<400> 6447

| gtaaacacat | agggtctccc | tatgtggcca | agactagtct | caaactcctg | ggtgtaagcg | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| atcctcctgt | cttggcctcc | caaaatgcta | tgattatggc | tgtgagacac | tgcacccggc | 120 |
| aagggaaagt | actttattat | tattttttcc | agtgggaggg | tttggtcagg | cagggagcgg | 180 |
| ctgagaaagt | attttaaagc | aatgtttgtt | cttagttgac | ttcagtgtca | acaaaaatct | 240 |
| aaaaaaaaaa | aaaggaaaaa | aaagttttga | cttaactggg | gcaaaatgag | taacactagc | 300 |
| caaaaagtca | ggatgcataa | catctgtata | tcatgtgacc | ctggcaagtc | ccagctcctc | 360 |
| aaagccaaat | ttttttcatc | tttctcataa | ggtagaaata | gtttggcaaa | cgcttactga | 420 |
| actaccagga | agagctccag | gatagangga | gctttggcat | atcactagat | gctnaaattc | 480 |
| ggactgggtg | ctnaaatttg | nggccaactt | tttttctttc | ctttttttt | tttttttgg | 540 |
| naaacaaanc | cctnttt | | , | • | | 557 |

<210> 6448

<211> 563

<212> DNA

<213> Homo sapiens

<400> 6448

caaaaaggca cttttctgac tatttctgct aaaagctagt agaagccttt atagcattga 60 tgccaggggt taagcctcca ttataggaca tttcgtgata ttctgtgtag gcaaatgtag 120 gccaatgtgt ttctgaatat gcacatgtat atgatatctt taacaatgta taaaataaat 180 gttgtacatc ataaatagag ttctgtaact aactagcttc cataactaac tagctgtgga 240 aactctatgg agttgtctat attcctggct tcaaattcac cagctgtaat tgagaacttt 300 ggattaattg atctctaaat ctattcctgt ttgaagagcc catgatgtta gtgcatgcgt 360 ggattatgtg gtttcatctg aataattgaa taaaagactt aaaagttgag agtataaaag 420 gcattttatc cttaattcat gtagcatttt ttaagttctg agagagcaat tccctctttt 480 aaatcccaac tgntgntctt ttnccanttg aatggggggg ggnaatgggn caaaccttta 540 atttggcggg caaaaaatan ggc 563

<210> 6449

<211> 562

<212> DNA

<213> Homo sapiens

<400> 6449

cctgtgtaca aaatgtttaa ttttgacaaa gcagttaaaa ggctagggtg gcccttctgc 60 agccactggt gactgggaag agtgctctag ggacactggc caccccctg ctcctgtctt 120 cagacetetg ctetgggatt gggteeaace etgteetttg cagecatgtg gegateetea 180 gcatggagct ccttgccact gtcccccaaa ggggctcagt cgtccatctt cacgaagact 240 ttgggccgag aaaagatett gatggcctcc tetacetgca ceagetteeg gtccagetea 300 gcacggtggc tctgggctct cagtgagtct gccccagcag gcagcagtac cagctcacgc 360 agcagctggc totggctotg gagcagottg gtoaagtgtt tocagcoogc tggttotoag 420 gcatgcccct gtggcctggg ggcatggcaa ggtccggctg gctcttgttg cgggcttngg 480 540 cttccgncgc acaaggtcct gggctcaaca agtatgnggc acatggccct ttgggnggca 562 ttgaaggete enggeeteen tt

<210> 6450

<211> 562 <212> DNA <213> Homo sapiens

<400> 6450

gtattctcag agctgccagg agtgcatcga gcctgtaatt tcctgttctc tgaatccccc 60 attittetge ageteeaage titgtgteee acageetgtg actetgtget aacaaatege 120 tattgtccag tggggcgaat ggtggctgga actaaagaat tgctgtctgg tttctatcca 180 aatccaggta gcgagatata tgaatggact tttcgaatcg tcatgtgaat aacgtctgct 240 cggcatgaag gctcagagcc atgctaggaa ggattaactc gtaggctgac cactaacatc 300 ctttgtggta cgagggagaa acattcccaa gtatcatttt attcacactt aattttctat 360 cccatacccc caaaataagg ctagctattt aattagttgg ctgcttttct cttaattttt 420 agtgtttctg ttgataatgt gtaaagtttg ggaaaatgct aagtagcttt tcacttagaa 480 cactggtatt ttctctttna aggtttctan cctacattaa tattgcntaa gtaatcttat 540 tgctaaatcc caaagtaana aa 562

<210> 6451

<211> 536

<212> DNA

<213> Homo sapiens

<400> 6451

cattttttt tttttttt tttttttt agatagagte tegetetge acceggetg 60
gagtgeagng gegnggtete ggeteactge aacettagee teeeggtte aggeaattet 120
ntngeetnag ceteeegagt agetgggaet acaggegeee geeaceaege etggetaatt 180
gtaageette tttttaaaca acacactaga caceteettg tttgaceeae tataagette 240
cteeteattg neageattte caceteeett geeagaattt aaatgeetnt eagteeatae 300
agetaetnte cacaacanat ggtgatgtet catttteteg ngettagaet actaaceaaa 360
aaaaaagtee taggaagetg getttagett eeeatteaee tteetetatg ggtatgeett 420

| tgngaacagt | ttgttcaacc | tcatccaaga | catgagcatg | gcccaatgna | aaattntggc | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| ccanaaaaat | nggtggnttn | agaacaaatt | ttataattcc | aatggctttn | gggagg | 536 |

<210> 6452

<211> 565

<212> DNA

<213> Homo sapiens

<400> 6452

| cctgtttggt gccctagagg | tttttacatc | ttggatcaat | gcataatggg | aaatacataa | 60 |
|-----------------------|------------|------------|------------|------------|-----|
| cagcaaaagg taacaagtaa | gagactttgg | aaaagacaat | gcaaaaaaca | taaacaagat | 120 |
| ctccgaagac tagaaacaga | ttcccttaaa | gctctctgng | cctttatata | tcctgaaaaa | 180 |
| tcttagngta tagcttggga | taggtatacc | ccagttttgg | aaactactgt | agaataaatg | 240 |
| gttttctaaa atttataatg | gatttaactc | atgttaattt | taaatgtcta | tatagttcac | 300 |
| ttactagtat ttctccccat | aagaaaaaca | ccaaccacac | caatataaaa | tgtgagaaag | 360 |
| aatctgatat gctgctttaa | aaaaatcttc | ataaatattc | cataattttc | cattttggta | 420 |
| aattataatc ttttcaacag | acttattacc | cagtaaccaa | actttttact | aggatececa | 480 |
| aaagngcccc caattttcct | aaggattaat | catttcccat | tggtatgacc | tgaaggttng | 540 |
| ggtcccttna aaggcttttn | tggaa . | | | | 565 |

<210> 6453

<211> 581

<212> DNA

<213≻ Homo sapiens

<400> 6453

ggctttttt tgagaggaag cetegetetg teacecagge tggagegag tggcacgate 60 teggeteact geaacetetg cetececae geaagtgatt ettgtgeece ageeteeaa 120 gtacetggga etataagege gegeeaceat geeeggetaa tttttgtatt tttagtagtg 180

acaggittca ccatgitigic caggitigite tigaacteet ggeeteaggi gateegeea 240 cetnggeete ecaaagiget gggattacag geatiggeea ecaegeecea ecaataatte 300 aateataaaa tietiggitte tieaatigite eeecaaaaa aatigitigigi 360 gtaatatati aatigeettag tagaaageat gaagggaaga agtigeateet geeteecatig 420 tigetigitige antigeteet tigeagitangg nitaaggeeae gacactiaag getittaagg 480 acaaacaagg anaaggaaga aggaagaatig ggaagtigit aagitaatig ggattigagt 540 titaantigigi atigacaaaaa aatittiggaa aanantignig g

<210> 6454

<211> 531

<212> DNA

<213> Homo sapiens

<400> 6454

aattagagca ggtatgcttt tgatggtngg gaagggatgg aaaaaaggaa aagcantaga 60 aactgnccaa ttcacatcag ttatccgtct gctttttctt gagagcttgt ggaaggngtt 120 aacgtggctg ggaacatcaa caccttggca tgcatgaatg ttaagtcagg aaggccagcg 180 240 atcaccttga tagcttette acttaggtge tettetett teggttteet actggtagat 300 gtgcttgtct tctctactgt agacatgagt cttgcaaatg catcactcac tttgaggctt gaggtggana tttccagctt anaagttgtt aactcataca actccggatc cacacctggg 360 attgaggtgc tgctgctaga gctactgtca tccacgggcc caaagaaatc aaggttcaga 420 480 agagtggaac ctccctacca tctaaagggn tagtannggc nctgntactc antcaactgg 531 ccgggtggta taaactctgg aactgaccaa agtcntgggt catatctggg a

<210> 6455

<211> 557

<212> DNA

<213> Homo sapiens

<400> 6455

aatgattaag agtttgactt attgtcttat cagctaacag tccatatttt gggctagtat 60 gtttgacaaa ggggtgacga cagctgctac aggagaatga cagaaggaca aa&aaactga 120 aatacacaaa gtaaccaacc ttcttctcct tcccaaggag gacagaagag aactcacagc 180 aggeceetge cetageatag eteatgtace ttgtgacete ceageagage ateatgtaga 240 tgcccctaaa agcagctgtt atggaaccag ctggtccccg tggaaaggag gcaatggctc 300 360 gtttcactat gtcacccagg ctggagtgca gtggcgccat ctatctcaac tcactgcaac 420 cttcacctnt caggitcaag cgattctcct gcctaacctt ccaagtagct gggattacan 480 540 gnacccacca neacacttgg nttaattttt ggttttgagt nnaaatgggg gtttaneatt ttggaaaggt tggcttg 557

<210> 6456

<211> 574

<212> DNA

<213> Homo sapiens

<400> 6456

cctttccatt gtgtcagctt ttgggacaca cactttattg cacttgattt ttttatacat 60 ccatttccta aacaagatat gtttattcat ctttttaatc ctcatggctc agcacagggc 120 ctgacataca taggcattca accaatattt gatctccaaa gcatgaccat tcatgcatcc 180 ataatccttt ttctatagta taaagatggc tgacattcag gcccccatgt atattttaag 240 gaatatataa ttcccaataa gctcttcttt ttaaaggtga ttaacagttc tagtgttcaa 300 tttcaaaatc aaaatgacat catatcaggt gtcattaaaa gacgaatgcc aaaccatatt 360 tgcctacaca ccactgcctt ttccctttct ttcattttct ctgccatatg aaagccatgg 420 gtttttttgg agttttcacc atctctaaga gccctgaaca atttttaatc ctataaggct 480 540 ttttacttca gttctgncac ctattaaaag cctgggtgtc nagactgaag atatcnctaa 574 ctctctctat cttacncctt ttcnattctt cctg

<210> 6457
<211> 546
<212> DNA
<213> Homo sapiens

<400> 6457

60 gagacagagt ctcgctctgt ggccgtggcc caggctggag tgcagtggca caatctcggc 120 teactgeaag eteegeetee tgggtteaeg ceatteteet geeteageet eecaagtage tggaactaca ggtgcccgcc accacgcctg gctaattttt tgtattttta gtagagacgg 180 240 ggnttcaccg ngttagccag gatggtctcg atctcctgac ctcgtgatct gcccgcctcg gcctcccaaa gtgctgggat tacaggcgtg agccgccacg cccggcaggg accacacaat 300 ttattaacca accaggntaa taaattettn ttttttttt tttggagacg gagteteact 360 420 nttgtcaccc aggctggagt gcanttgaca cgatcttggn tacatgcaat ctccgccttc tggggctcaa agcgattctt ctgcttaacc tcttgagaag cctagggatt acaaggcttt 480 ttgncaacca naaccccaan acnatttttt tggatttntt aggttcaaaa acggggaatt 540 546 ngncat

<210> 6458

<211> 573

<212> DNA

<213> Homo sapiens

<400> 6458

gagatggagt ttcactcttg ttgctcaggc tggagcgcaa tggcacgatc tcggctcacc 60 gcaacctcca cctccaggt tcaagcgatt ctcctgcctc agcctccaa gtagctgga 120 ttacacgcac acgccaccac gtccggctaa tttttctatt tttagcagag atggggtttc 180 accatgttag tcaggctggt cttgaactcc tgacctcagg tgatccaccc gcctcagcct 240 cctaataaaa tttatcttaa taagataata tgttaatata agatagagga ctgatgcctg 300 aaattaattt ttgtgctcta aaattctgtg gaagtactgc ttccaaatac gacacatatt 360

| ttactccgta | tctctttaga | attaatataa | agtagggaga | aatgaggaac | aagatagggt | 420 |
|------------|------------|------------|------------|------------|------------|-------------|
| aaagtgaagt | cctgcatgcc | acttctgcct | tcaacttana | accgtggtgn | aagttttaac | 480 |
| aggtcttacg | ggtccntgan | ggctttttag | aaacttttan | acttccgagn | ggaaaactgg | 540 |
| gatttccgtg | gtaacctaag | ggctttanan | aan | | | 57 3 |

<210> 6459

<211> 544

<212> DNA

<213≻ Homo sapiens

<400> 6459

| gattttgcag | cacttttaat | acacaaagca | aaaggtaata | ggctggatgg | gtgaccaacc | 60 |
|------------|------------|-------------|------------|------------|------------|-----|
| ttcattcaca | tacagagccc | aagtatagat | acagactaat | tgggaaataa | gttagagttt | 120 |
| gcagggcctt | agggctgaga | gccagaaaca | ctgtcctttt | ggcagccatg | gaagcgagga | 180 |
| tttccttttc | tgaggacaaa | aaggtaaaaa | taagtgtttt | taaagtatgg | cagacaccca | 240 |
| gtcttcaata | aagaaggtgg | ttacatcctg | gccaggcctt | caggcaggca | gaatggagcc | 300 |
| aggcagggcc | ctgggaaagc | .ccaaactatț | ctgcatgaag | ccaggcaggg | cagctggcaa | 360 |
| gagggcacct | ccttcaccct | ncaccacccc | ccattccgat | cacagttaat | catctcctct | 420 |
| gattctcaca | acttcttcaa | actctttggt | gcttcagaga | aagccaggaa | cacngggcaa | 480 |
| ttcttaatgg | ttgngnaaag | taagccctgg | ctgttncnta | cagtttttnc | cggcttaant | 540 |
| tgtt | | | | | , | 544 |

<210> 6460

<211> 546

<212> DNA

<213> Homo sapiens

<400> 6460

aaaaattgct aattcacaga acatggagat gagtatgttt tgaaggcttg gaagcatgca 60

agtgggagaa gaaaggagtc agctacattc tggctgtgtg cagaggcagg tcactgtggt 120 gggagtgttc ctgtctcatg gactctgcaa atcacaatgc ttggcatggc ctcccgaccc 180 tgatggcaga gaagcaaaca ccagtcggag agctggggtc ctcccagccc tcttggccct 240 gtggccaatt ttttctccaa tagcctcata aaatcacatt atttgagtgt ccatggctcc 300 360 aaaacaagca gggatgccca tggaccctga ttatccattg tcacccttcc tncaaacagc cacctctccc ctggagacag ccccatactc cactcagacc tgtgcacttc ctggtatcct 420 tgncacctgc tttttatggc tcatttacaa acccaaattg ganggacagc aggagctgcc 480 cataataccn gtaaagtgag aaccnagnta actagnctaa cagccgatta tgtngggcaa 540 546 nccact

<210> 6461

<211> 567

<212> DNA

<213> Homo sapiens

<400> 6461

cataataaac tttattgtga caggcggggc tgatccctcc catgttggga gacaccatgt 60 ggcaagtgac aaagctctga gcccgcccct cttggggcca cagtggtagg gatgggggaa 120 ggggatggac cccatggctg gggtagtacc atgactggag gcgggggagg caaccagagg 180 240 cctgctgctt tggggaggtg cattccccca accatgtccc gacacctctg gagttcaggc aaggacette cagteetaet tgteetgeat etteteaagg ataggeacaa teatgteaaa 300 tttgggtcgc tttgcagggt cttcattcat gcagatcttc atgagcttac acacatgagg 360 ggaaatacct ggtgggatgg taggccgaag gccttccaat gccaccttca ttccaatctc 420 catattggaa gaggtcagca aagggtacct tccgtgtacc aatttccaca gaagcncttg 480 aaaacttcac atgtctnctt gaacctttgt tngggtntta agcttttttg gcaaacttng 540 567 ggggcttccc angcagntcc ttaattc

<210> 6462

<211> 538

<212> DNA

<213> Homo sapiens

<400> 6462

| gagacagag | t tttgcttttg | ttgcccaagg | tggagtgcaa | tggtgtgatc | tcggctcact | 60 |
|-----------|--------------|------------|------------|------------|------------|-----|
| gcaacctcc | g cctccctggg | ttcaagcaat | tctcttgcct | cagcctccca | agtagctggg | 120 |
| attacaggc | a tgcaccacca | catccggcca | attttgtatt | ttcagtaggg | acagaatttc | 180 |
| tccatgttg | g tcaggctggt | ctcgagctcc | tgacctcaag | tgatctgcct | gcctcagcct | 240 |
| cctgaagtg | t tgagattaca | ggcgtgagcc | accgtgccca | gcctaagctg | gcatgtttta | 300 |
| aggcagtta | c atctctaact | tgatttacca | gctatgcttg | agggtccaag | gagccaaaat | 360 |
| tgcagccaa | a ctgatcttaa | aggaccaggg | aatagaatgg | tcaancatgt | ttccaaagtt | 420 |
| taacctaag | ctggcacatc | cttgccnatt | gctcaaaatg | caatnaaggg | caactaaatg | 480 |
| gaaaagaat | a caggaagacc | catttgggng | gacacttgtt | gaaaacacan | ccgtnnna | 538 |

<210> 6463

<211> 575

<212> DNA

<213≻ Homo sapiens

<400> 6463

| atttttattg | tttttgagat | ggagtctcgc | cctgtcacct | aggctggagt | gcagtggcgc | 60 |
|------------|------------|------------|------------|-------------|-------------|-----|
| gatcttggct | cactgcaagc | tctgcctcct | gggttcatgc | catteteetg | cctcagcctc | 120 |
| ccaagtagct | gggactacag | gcacctgcca | ccacaccagg | ctaattttgt | ttttgtattt | 180 |
| ttagtagaga | cggggtttca | ccatgttact | tttaaatgtc | tataaatatg | cctttaaaat | 240 |
| tcatagtagt | cttggacagt | atacaaagtt | tgacttagtg | ggggtataaa | tttaaaaaaat | 300 |
| acgaaaacaa | gggaaacaac | caccatgtcc | aacatgaaag | gagtacctta | gttaatatga | 360 |
| tccaccaata | cagtggaata | ccacgaggtc | atgaaaatat | tagʻtgaaaga | tatgaatatt | 420 |
| tgtgatataa | aattaaataa | aatgtgaaag | acaaaattat | gtgtaaacta | caattgcact | 480 |
| atttttacaa | ggnaccccat | gaggattaag | acnccgaaga | tccatgcaaa | aaaaaaanta | 540 |

| cttggttaaa | tggnggaaac | cgggaatttt | tnttt | | | 575 |
|------------|------------|------------|------------|------------|-------------|-----|
| <210> 6464 | | | | | | |
| <211> 581 | | | | • | | |
| <212> DNA | | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6464 | | | | | | |
| ggtagagatg | gggtctcgct | atgttagtaa | ggatcttaag | attaaatcat | ctggtctatc | 60 |
| caggtgggct | ctaaatccaa | tgacagtgtc | ctcataatga | aagatgtaca | aaggagagac | 120 |
| agagaagaaa | aggcagtgtg | accacagaag | cagaaactgg | agcggtagga | agagaaaaag | 180 |
| aacagactct | cccctacagc | ctcccaaggt | ggcactaccc | ctactgccat | ctcaatttca | 240 |
| gacttctggc | ctcctgaact | gtgcagaata | aatttctcgt | tttatgtcac | caaatttggg. | 300 |
| gtactttgtt | acagcagcct | aagaaactac | tacatcactg | aaatacaggc | tttattcacc | 360 |
| tcctccacgg | aagcaggtga | gagtaaaggc | gaattagcct | ttgaaagttc | cttgcaaagc | 420 |
| aggaaaatgt | tcaattctgt | gacacaggaa | ctaaaagctg | ttcccgctag | gaagtggcag | 480 |
| aatgtacaga | gacaggctac | ttgcttttgc | cacaagttcc | aggnttnact | tgganccttt | 540 |
| gcacttgggt | attgactttc | atttggattt | ttttttaagn | C | • | 581 |
| | | | | | | |
| <210> 6465 | | | | | | |
| <211> 559 | | | | | | |
| <212> DNA | | | | • | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6465 | | | | | | |
| gacagaagcc | ttgctctntt | gcccaggctn | gagtgcagcc | tctgnctncc | ggnttnaagc | 60 |
| gattctcctt | cctnagcctc | ccgagtagct | gggattacag | acatgctcca | ccacgtccag | 120 |
| ctaattttt | tattttttgg | tagagacggg | gtttcaccat | gttggccagg | ctggtctcga | 180 |

actectgate ttaagngate egeetgeete ggeeteetaa agtgetggat tatageeeae 240

ccaatcctat ttttttaaaa tgctgtccat taatgcattc tgacttcttg cttgaaaacc 300 cctggtttag tggataagca cctgtaactc caggaagatt caggattaag ggcagaaata 360 atgaagtaaa ttgaagtatt agcattagna ttttccatta cattttggaa tccgctattt 420 tgatgtattc acgacggtta aaataattta acatgcttaa tgnatggatt aacttgggca 480 attncatttt naaaatataa atggaataac gnatctgant ctaaggtaga catgtgttac 540 cagaatttca accncnttt

<210> 6466

⟨211⟩ 575

<212> DNA

<213> Homo sapiens

<400> 6466

aaatcaagga acattgtctt ggcttttttt ttttttttt ttttttgnca ttgcttttct 60 cttttctttc ctttttttt tttaaagaga ccattccact ttattataac atctggatgc 120 ataaggactc atgtaaagca gtcatacncc attatcatta aaacccatat ggnaaaatac 180 atacacagte caacaaaagg etaatacata gtaaageeta ageatactae tatgtaatat 240 tataatacat aacttggaga ctttagttag agtactatgt tatctattca gttttgaaaa 300 cattcattaa gattttaaat gcaaattcat tccttatttg gaataaaaca aagtcctcta 360 agttataaca agtattggtc ataagttttc agacctattc attaaattca aagaacccaa 420 agaattetgn gatgteeagt agaagtatgt aataaaaaca ttgeatatgg ttetaggggg 480 gagggettta geaattggtt actggagtna aatgeaaent taatettinn aaateeagaa 540 575 ccgaaggggg tttcttcttt tggccaattg ggaaa

<210> 6467

<211> 579

<212> DNA

<213> Homo sapiens

<400> 6467

ctatgtatag tcagttagga ctttggcaaa tataaagcac aaccaatata ctgatgtagg 60 gtggaaaata atttaaaaaa ttaatttagt aaaatgcctg gagcagtaag taacaattat 120 taacaataca acaatgaagc tgtctgtact ttcatttaac aacacactta aggcaaatgt 180 tgaattaata taaaaataat atgtggtaaa ctgatacttg acatgataca ataaaattaa 240 ttttcacgtt gaagacctag ttatgacaac atctctacat gccttctaaa tacctaattt 300 ctcagttgtg cagagcatag ctcactatgg cctaataaga tgtcaatcag aatatccaga 360 atatttctta atatagagca atacatttcc cctaccacat caggcaaaat aatttaatat 420 480 atttattttc acaaaaggct catctaactt caaactatag gggtttttaa aattctagga ctaattctga tcttaaagat gctatcattg gtantctaaa attcatgcng gtcttaaaag 540 579 ggccaaatgc ttatccggga ggtttaccct aattanccc

<210> 6468

<211> 576

<212> DNA

<213> Homo sapiens

<400> 6468

60 gagacagggt ctcccctgtc acccaggctg gggtgcagtg gtgtgaccat agctcaatgc agecttgaac teetggacte aaacagteet eetgeeteag eeteecaagt agetaggact 120 agagacgtgt gctagcacac ctggcttata ttttattttg tgtagagaca gggtcttgct 180 atgtggccca gggtaatctc aaactccttg gttcaagtga tcctcttgcc tcagcctccc 240 300 aaagtgctgg aattacaggc aaagttctct gaattatagg aggttggtgg ggcctttcac cacgtaggca gcccaaagat ctgcctcgtg gatcactatc ttgggatgta tggttgtatt 360 420 tcttggatga aagggaggg ataagagtat acaaaaatct ttcttaaaat aaaattaatc tgatgtaaag caaacatgaa tgagtttcaa aacgtgaatg cccaaagtta ttcataggta 480 atttagactt aacaggtggg tttctatcaa ggggntttac catcctaaaa ttataagttt 540 576 tccaattatg cccnattgga angtacnttc ccagcn

<210> 6469
<211> 545
<212> DNA
<213> Homo sapiens

<400> 6469

60 cttcagtata agcaccttcc cccatcatta cctacagcat tcacacacag atgtgaaatt gtttcatttc tgacccagat tctggctttg agtattaagt ctttccaaac tccatatttc 120 180 ttcatatttc actaggaaga ttataaactt atctgaaatg gcagaaattc attttgcttt 240 caatttctca ttctgctgta tactgccgaa aaggggtaca taatgagaag tgagagcagc 300 agcctggcct gctgcccagc tggaagcagg aagttcacct gataaggact tgatgcttca 360 aattotaaaa actggaaagg gagotagaag tgggggaagg aagatotgga aacatgcoca ggggtagtaa tgaagaaagt gaattcagcc tgagggtggg accttctgcc cagcctctgt 420 caacttgatg cctcgttatc ttctccatct tcctaacccc anggcagtaa atttaaggag 480 caaggtggna aaagccncta anaaagccan ggcaggataa aaaccttttt gagggngnaa 540 gtttt 545

<210> 6470

<211> 497

<212> DNA

<213> Homo sapiens

<400> 6470

caggcacctc caaacatatt ttctttattt cctccagaga acaggcttta gtactgaggt 60 ccttgtaaac atttaacaaa actggtttaa gaacaaacta aaagcatcta tatccttgcc 120 ctgtgttgct ggggtgagtt tatacaagga gaagttggaa caaatgcagt gggcacaatg 180 accttcttac tcagttcaaa gtaggtcttg ggatgaggt tccacacggc cagtacagct 240 gactttctgt gatttccaag gggngcccaa gacattaaac gccatggtcc ttgggaagga 300 ctgatgatgt ttctgctcat tgntgatcag ggtcaaacct tttcactaac cgggactgct 360

| ctttccaaga | agtcagaggt | cagaaagctg | gtaaccgtcg | tacaaagacc | cgtnttgaca | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| gcatgtgtag | ancignttct | tccatggggn | taccttggca | canggtcaca | agcagncccc | 480 |
| atgggcttan | gggccta | | | | | 497 |
| | | | . • | | | |
| <210> 6471 | | | | | | |
| <211> 510 | | | | | | |
| <212> DNA | | | · | • | | |
| <213> Homo | sapiens | | | | | |
| • | | | | • | | |
| <400> 6471 | | | | | | |
| gagacagtct | cgctctgtca | cccaggctgg | aatgcagtgg | tatggtctcg | gctcactgca | 60 |
| acctctacct | cccaggttca | agtgattctc | ctgcctgagc | ctcccgagta | gctgggagtg | 120 |
| caggtgagag | gtgacaacgt | gctagcagcc | ctcgctcact | ctcggngcct | ctttggcatt | 180 |
| ggcgtccact | ctggccacgc | tcaaggagcc | cttcagctcg | cagctgccgc | tgtgggggtc | 240 |
| cctctctggg | gctggctgag | gccggagctg | gttccctctg | attgcgggga | ggtgtggagg | 300 |
| gaaaggtgtg | ggcaggagcc | agggctgtgc | gcacacacgg | gttctaggtg | agcgtgggct | 360 |
| cancaagtgc | ctgctgggct | tgatcagggg | atgagctccc | tctgggtggc | tggagtgccc | 420 |
| aagctaggtg | ctgcaaagtc | ccatggnagt | gcccntnaaa | aaaaccggnt | ngacttttc | 480 |
| tanccatggg | gactttgggg | acctttntgg | | | | 510 |
| | | | | | | |
| <210> 6472 | , | | | | | |
| <211> 580 | | | | | | , |
| <212> DNA | ٠ | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6472 | | | | | | |
| aaaaaaaaaa | caaaacacat | agacaagtaa | tgcaaacaaa | gtaagagcaa | gacttgtgca | 60 |
| gcagctcttt | tgaggacaat | caggaggtgt | ctggggggcc | cttcccacta | gagggcactg | 120 |
| gaccctgtcc | ctgcatcttc | agtcgtctct | actgccacat | gccctgtcca | caccaggatg | 180 |

acccctccc acccagece tatgactet gaaagetett cagcacacat aacaggatee 240
agacagaact tggacettet etgetggage aaattggaat teetgaaatt gattgaacee 300
teeatacaga gggageteag teegeatete eteggtttaa ggeeetgeet caaatagggg 360
ttetgateee teaggaaage aagggetega gacacagaca cacctgacet gagggaetet 420
aaggggaagt gtggaggtge caggaactat gaacaatgag caaaacatgt ettgeeacea 480
tnacactaca tgettteaa catteetatt tattaceaaa etggtttgae ettgnttaca 540
aggtnnggaa aaactggaat etaaaatttt teeggtaett 580

<210> 6473

⟨211⟩ 604

<212> DNA

<213> Homo sapiens

<400> 6473

aattatttca aattttattg nagattcaag gggcagtgaa tgtacaggtt tgtttcatgg 60 tgtactggga tgatgccgag gtttgggaca caaaagttcc catcacctgg tagtgaggat 120 aacaacagtt tttttcaacc ctttcccctt cctttcccct cccagtagtc cccagtgtct 180 actgttgcct ctttatgtcc ataggtactc aatgtttagc tcccacttat caatgagaac 300 atgtggtatt tggttttctg ttcctgtgtt aactcactta ggatactggc cttcagttgc atctatgttg ctgcaaagga catgattttg ttcttcttac ggctgtgtag tattccacgg 360 caacacattc tatcagtaaa atttataata aacgtatgca cacacaaaca cacacccctg 420 ttccacccca cacccctctt cacaagttgg ttgttaaaca tttcctagca cactaccaat 480 540 tccctacatt tgccactatt attggtatta tcattaataa ataaactgna taatggttaa caggitacca agcaticcit acaacaagce tiggitaaag gngitantaa citacitige 600 604 tgag

<210> 6474

<211> 600

<212> DNA

<213> Homo sapiens

<400> 6474

agacagagte ceattetgte acceaggetg gagtacagtg gagcaatete ageteactge aaactccacc tcctgggttc aagcagttct catatctcag cctcctgagt agatgggatt 120 acaagcatga gccaaaacac atggctaatt tttgtatttt ttaatagaga cgaggtttta 180 ccatgctgcc caggctggtc tcaaattcct ggcctcaagt gatcctcctg cctcagcctc 240 ccaaagtgct gggattacag gcttgagcca ctgtgtccag cccatatttg attttaacgt 300 cctgtcctga aatatgcctg gaacagagca gtactcaata aatgtctgta gaatgagtaa 360 gtgctcacct gcatcccatg cctgctctta atcctcacaa ggtctgtatt agtatctcag 420 ttggcaaatg aagaaactaa ggcttatctt gtactggcta attatgtgat ttcagtcaca 480 caattaaaga atgacagaga tgatttgtga actcangctg gcttgaccct aaaccctggt 540 ctcttttact acatcagcct tctttactgg atggaaccaa cctaattttg aatttgaant 600

<210> 6475

<211> 577

<212> DNA

<213> Homo sapiens

<400> 6475.

60 cttctaaaca aaagggggt acatacacag aatgtgcagg tttgtcacac aggtatacat gtgccttggt ggtttgctgt acctattgag tggtcctcta agttccctcc cctcacccc 120 aaccetecaa caggeeetgg tgtgagttag teetetetet gtgtteatge atteteaatg 180 ttcaactccc acttatgagt gagaacatgt ggggtttggt tttctcttcc tatgtaagtg 240 300 tgctgagggt gatggcttcc agcttcatcc atgtccctgc aaaagacatg atctcattcc tttttatggc tgcatagtat tccatggtgt atatgtacca cattttcttt tcctttttta 360 420 ttatacttta agttctggga tacaagtgca gaatgtgcag gtttgttaca taggtatata 480 tgtgccatgg tggtttgctg cacccattac cacattttct ttatccagng tatcattgat ggcatttggg ttggttccac aancettget attacaaatg ggctgcaata aacatcatgn 540

| gcctg | gatct | ttttngaang | attaatatnc | cttnggn | | | 577 |
|-------|-------|------------|------------|------------|------------|------------|-----|
| <210> | 6476 | | | | | | |
| <211> | 572 | | | | | | |
| <212> | DNA | | | | • | | |
| ⟨213⟩ | Homo | sapiens | | | | | |
| | | | | | | | |
| <400> | 6476 | | | | | | |
| aggat | atagg | ttttctggtt | tatttttgaa | agcaaaaagc | atatttaaag | gttaactaaa | 60 |
| aacgt | actgg | atttacaaaa | aagaaaaatg | atatgtctga | ataggagtca | ttattttaag | 120 |
| actaa | aaaaa | gagaatcaaa | tgaagaaatg | ctggaaaatt | ggaatcactt | ccaaattgct | 180 |
| ctatt | taatt | ttaccataag | cataatagtg | ggtgaagttc | agctaaagat | aggggcatga | 240 |
| aaaaa | atgtg | atttggtatt | gctctttagg | gaggcaaatt | aattacaaat | taagaccatc | 300 |
| tgggt | taaag | aatgaattgt | caccttttaa | gaaccaggaa | taaaggtaaa | tgttcacttt | 360 |
| aaaac | aaagg | gagaaagaac | atgagaaaaa | tcaagagtaa | atccgtacaa | tattacatac | 420 |
| acaca | aattg | ggggaaataa | acattggcat | ggaaatgccn | caaaataaaa | tacctatgga | 480 |
| atgta | aaatc | acctntggtc | cctgaatatt | gancccaagn | ttttggggaa | agntnaattc | 540 |
| ctgga | ttctt | tccaggcctt | gggganggaa | nt | | | 572 |
| | | | | | • | | |
| <210> | 6477 | · | | | | | |
| <211> | 598 | | | | • | | |
| <212> | DNA | • | | | | | |
| <213> | Homo | sapiens | | | | | |
| | . • | | | | | | |
| <400> | 6477 | • | | | | | |
| cactt | aaatc | cattgttagt | gacaatgtaa | gtgtttaaac | agtattgctt | taggaatctc | 60 |
| agaag | ttcaa | gtagaaagac | atattccata | ttctgggaaa | agacggtaca | aagactttaa | 120 |
| gaatt | taatt | ttttaaaagt | ttcagtaact | accttcagtt | accttcagtt | aactacctac | 180 |
| | | • | | | | | |

ctactcatac ttttcaacaa actgggaaaa aagtcttctc taaaatcagc atctacttgg 240

cagatgtatg teateattgt gteteteatt gttteateet taaaaatgtg taataetttt 300 aattgeagag gtaataaaag atatttattt gaaaaaaata aagtgattat etaettettt 360 eetgaggeae acagaettte agattttatt tatgeaegaa ageatttaaa aatgaggtaa 420 tatatataet ettteaeeta ettteaegt gtttaetttt etatgteaaa acataeaaag 480 ttagateatt acettgnatg tattgetatt taaagtatet teattggtag ataaataeee 540 agtgggteet ttngnttget atteetaagt aaaettgggg ggattngate etagttne 598

<210> 6478

<211> 354

<212> DNA

<213> Homo sapiens

<400> 6478

gagatggagt cttgctgngt tgcccaggct ggagtgcagt ggcgcaatat tggctcactg 60 caacctccgc ctcccaggtt caagtgattc tcctgcctca ncctcctgag aagctgggac 120 tacaggcacg cgccaccacg cccagctaat ttttgtattt ttagtagaga tggggtttca 180 ccatgttgac caggatggtc tcgatctctt gaccttgtga tctgcctgcc tcancctccc 240 aaaatgttgg gattacaggc atgagccacc gcncctggcc cactagctct agnttttatn 300 acacatngnc acctcanata ttcataaagg ttanatgttg caaaataata aact 354

<210> 6479

<211> 589

<212> DNA

<213> Homo sapiens

<400> 6479

gagatggagt ttcactcttg ttgcccaggc tggagtgcaa tggcgcgatc tcagctcact 60 acaacctttg cctcccgggt tcaagcgatt ctcctgcctc ggcctcccga gtagctggga 120 tcgcaggcat gcaccaccac acccggctaa ttttgtattt tcagtagaga cggagtttct 180

ccatatttgt caggetgate tegaactee gaceteaggt gatgtgeetg ceteageete 240
ccaaagtgee gggattacag geatgageea etgtgeetgg ceaggtgaae tattaaataa 300
tagaaageae etgeaceate teetgeetge tegaatttee tetacattta caaaaatatt 360
tttgatataa gaaaacaaaa aatttaacae aatagaaata tagteaaaeg atagaattee 420
tegacatata eeaattttat ggtaaaaaaa aaaaaaagea atgttaacaa etggttetae 480
aaatgttaa aactteatat aggeeangtt tggeagetea tacttagaat eteagaactt 540
ttganagget nangtgggan gateaetggn aactgggagt taangaeea 589

<210> 6480

⟨211⟩ 586

<212> DNA

<213> Homo sapiens

<400> 6480

aaatacaaat gttttattac gcaaaccaca tgtaggtccc aggctcagga gtcacagggg 60 tctgcacagt cctttctgct gtggaacacg tgatagatgc tggtcggggg gaacatagca 120 acagegeega geagagagee cacetggatg gecaegeegg etgeeageaa tgeeggeegg 180 ccccgccat gcagcaggga gctggctgcc accttcacgt aggagaacac gccaagacac 240 agcacceacg acageaceae gaggaegace ecegeegagg tgeécaceag gggegggeag 300 360 gggctcagga ctgccagcgc catcaggtag cccccacaga acacgcccag cagagagag ccgccagccc tgcaaggacc tgcacagcac acccatggcc aggaagcagg ccaggggatt 420 480 ggcagcactg cccagcacca caagcaggtg gtaggccaga cccccgtagg gtaagcagga aaaagttttg accggangca agnacgccat tgggcaaacg ccttggtggc gggcaacagg 540 nccaacange angeacttgn ggettgatan aacttgatag geetta 586

<210> 6481

<211> 588

<212> DNA

<213> Homo sapiens

<400> 6481

gtttgttttt gagacgcagt ctcgctctgt tgcccaggct ggagtgcagt ggcgcaatct 60 tggctcactg caacctccac ctcctgggtt aaaacaattc tcctgcctca gcctcctgcg 120 tagctgggac tacaggcatg tgccaccacg ctcagctaat ttttgtattt tttagtagag 180 acaaggtttc accatgttgg ccaggatgtt ctcgatttct tgacttcatg atctgcctgc 240 cttggcctcc caaagtgctg ggattacagc tgtgagccac tgtgcccagc cctacattga 300 ctgattttca aatgctgcct tatattccaa gcctaaatcc actcggtcat gacttgttat 360 420 tatttttatt attgcctaat tcaatgtact aatattttgt gaaggatttc tgcatctatg ttcctaagag acattggtct gcagttttct tttactgnac taactttgnc tggttgggaa 480 ccaggataat gctggcttac aaaacgaagt tgggaaatgt gnctctcttt tggtttttga 540 588 aaagactttc ngaatgaggc attttttcnc aatgnttgcn naaaatnt

<210> 6482

<211> 537

<212> DNA

<213> Homo sapiens

<400> 6482

60 agaagtcaca gcagttatcg tttattgagc actttctata tgctgggcac tttgccatgc gcattacaac tattttgaaa tacttctatc ccctactcct ccctccttaa taaccgaggg 120 gtgccgctgc gtccagggag gtcaagttct tgcccaggat cacacagccg ggaacacaca 180 240 ttccaaaacc cacgggttta accgcgaaaa cccgtttgct ccttcctcag ctccccattt 300 aaataacgtt ttaactttat tcagcaggtt tgctcatctc ccaccccaat cgtgactccc 360 cagaccgggt ctccacaggg accaagaggc ctctccctnc cccttcgccg cgggagcagg gaagggcctt cggcagcaac ttgttccacc tcccaaggtt cagacgctaa actgagttcc 420 agaaggaagg gcttacgcaa aggcncccag cgcgccagaa gangggtgtc ttttccgtgc 480 537 ccgggccaag cccggggcca gtccggaccg tgggcggnna cacttggact ngngcng

<210> 6483
<211> 591
<212> DNA
<213> Homo sapiens

<400> 6483

60 gagacagagt ctggctctgt cacccaggct ggagtgcagt cccatgatct cggctcactg caactccacc tcccaggttc aagcgattct cctgcctcag cctcctgagt agctaggatt 120 acaggcaact gccaccatgc ccagctaatt ttttgtattt ttagtagaga tggggtttcg 180 ccatgctggc caaaccagcc tcgaactccg gacctcaggt gatccaccca cttcggcctc 240 300 ccaaagtgct gggattacag gtgtgagcca ccacacccgg cccctttatc ttttgattcc tgaaaacaat gcacttaact tcagtatttg gtcttttagt tataattctt aaaaataaga 360 cattttaaaa catattaaat gtgcattatt tggaaaaaag tatatgcaaa tgaacctgga 420 aatatcaata tacaaaccaa tttttcaatt ctcagtccat ggaggggaga tctcatgnat 480 ttgacatttg aaaaccattt ttttagcaac tatgatagng ggttctaaac ttggccttaa 540 cacaagccat tttnctatat gacatgacat accaaggatt atntttgctc c 591

<210> 6484

<211> 550

<212> DNA

<213> Homo sapiens

<400> 6484:

gagatggagt ctcgctctgt tgcccaggct ggagcgcagt ggcgcaatct cggctcactg 60 caagctccgc ctcctgggtt caatgttgtg aatattctta atgcatttca ttatttatat 120 acaatatgat actgatgagg agtcattata ttctgagtag ttttcctgaa gaccacaagt 180 ctcaagtcaa ggaaagtatc cttaatctag gggaaaaaaa ggaagtttct aaattgttcc 240 acaatacact tcactaagaa ttgtactgta tgacaatgtt aatttttaaa aataatatat 300 atatatattt ttgtttctgt taaggatggt ggtatttgct taatactggt tttcctgtat 360

| | | • | • | | | |
|-----------|--------------|------------|------------|------------|------------|-----|
| agcagatat | t ttcttatggc | tatatttact | tgaatgaaaa | attaaagatg | actacctgaa | 420 |
| tattccagt | g tataatteng | gtacaacctc | atgaaatggg | ttgattctgt | ggtctcaagt | 480 |
| ctagaatco | a gaattgctgg | ccaatctgna | aattattcag | aacaaataag | gccnttnncc | 540 |
| cccnggggn | ın | | | • | | 550 |
| | • | | | | | |
| <210> 648 | 35 | | | . • | | |
| <211> 550 | | • | | | | |

<400> 6485

<212> DNA

<213≯ Homo sapiens

| agacagagta ttgctct | gtc gcccaggctg | gagtgcagtg | gcgcgatctc | ggctcactgc | 60 |
|--------------------|-----------------|------------|------------|------------|-----|
| aagctccgcc tcccggg | ttc atgccatcct | cctgcctcag | cctcccgagt | agctgggact | 120 |
| acaggcgcac gccgcca | icac ccagctattt | ttttgtattt | ttagtagaga | cagggtttca | 180 |
| ccatgttagc caggatg | ggtc ttgatctctt | gaccttgtga | tccgcccgcc | taggcctccc | 240 |
| aaagtgctgg gattaca | iggt gtgagccacc | gcgcccggcc | ctgttagata | ctttttaaa | 300 |
| aacaacagtt tgcttta | aac tataaacatt | aaaccctccc | aaaagaataa | aaatgcatag | 360 |
| tcagtagttt aaatgto | ettt attaataget | ataattaaat | ctttttcaa | aatatcagtc | 420 |
| caacataact ccaatca | tat ctatcacact | gatgggagga | aaaatgacaa | ctacccaaag | 480 |
| ntttnccatt actggat | aat tttgncnaaa | gattccaatt | gngagaaagc | anaagttcng | 540 |
| gaagagaatt | | | | | 550 |

<210> 6486

<211> 562

<212> DNA

<213≻ Homo sapiens

<400> 6486

gtgaaacatt tctcaaggca ggatgagcag ccacctcctc tgcgtttcca cagggccccg 60

ggcggagcta ttctagcact tgccacctac actgccattg tcaattaact tgtcccctg 120 gactggggga gtcctgagat caggggctgc acctaaccca tcattgtggc tccagcatct 180 ggcacatagt gggtgcccag taaatgtggg tttggcagat gaatgaatga cacgtgtctc 240 tctagtggct ctatggtgca cctgagctcc acgaagtctt cttcataaca gaggacaggc 300 360 tgtgctgagc acctcctgga tgtgcgagcc agtgagtgtg ggtggggcag anagcgtgga gcatgagaag gcacatggga agtgggagtg ggagcatgca tacattttaa ccacacatgc 420 480 gggcaagttc acagactgcc ttggaatgag ccaaatgaga ctgatccaac ctggtnatgc 540 ctaaaagggg gaagtgnggn cattccccat ggccaaaaag gtnccaaana nccttgtcca 562 aacagggctt ggaaaaacaa cn

<210> 6487

<211> 618

<212> DNA

<213> Homo sapiens

<400> 6487

gagatgcagt ctcgctttgt tgtccaggct ggagtgcagt ggcatgatct ctgctcaccg 60 caageteege eteeeggtt caegecatte teetgeetea geeteetgag tagetgggae 120 tacaggtgcc cgctaccacg cccggctaat ttttttgtat ttttaataga gacggggttt 180 cactatgtta gccaggatgg tcttgatctc ctgaccttgt gatccacctg cctcggcctc 240 300 ccaaagtgct gggattacag gcgtgagcca ccgcgcctgg ccccacaaat tatcttttaa 360 gaaggtaaaa tgaatctttc tagaatacta cttaatatta agtcatttct tggctcaata atctacagtg gcatccaggt atgggtagga ttaaggctac cacataattg ttagactata 420 480 acctacttcc tgaaatgtaa attgtaactc catgtgcagg ttgacaaatg ctgaagtggg tgatgggtag ttagaggctc attgggctat tctctctact tttgtcaaaa tccactataa 540 aatatttaaa aagcaatata caggatttaa gttggccatg ctttctttgg aacctgggtt 600 618 ggggtanatg tggaaaaa

<210> 6488

<211> 617 <212> DNA <213> Homo sapiens

<400> 6488

aaacacaagc ctctgaccca cagtgattca tggggagagc ttagagagct ccatgctact 60 ggtaacttcc cttcactttg actaaagtga ctaacatctc tctacctgac ctcactgtcc 120 180 catgcagaga ccacgtgttg ttgatagaag attgtaccaa aggaataatt catagaacaa caaggaagaa ttaagctaac aacagattcc aaaatgttat tcaagaaatg agacaaaggt 240 300 aaggaatage tgetateace tttgttgagt gttactteca tgacgateet gteettggge ccaggggtct tccgacccag ggatgaagaa ctgccttcat cggaacctcc cgccgaggct 360 cccccactgg tattgaagtt cggggaggcg gatctgctca tgtgtgtggg tgtcgagcag 420 ggtgtgaggc tggggctcac caactttgtg cgtaccgtta aaacaaataa tccactccgg 480 540 atttgctgag aaaacagtga ggaaaggtgg gctgaaacat ttggaatgcc ttatatcaaa 600 gggttaaaaa aaaaaaccac tnaccaaacc caaccagaag gaaataagaa aggaaattgg 617 ataanggaga tcattna

<210> 6489 ⋅

<211> 617

<212> DNA

<213> Homo sapiens

<400> 6489

gtaagcgtca aacgtggcag ggtcaacact gtataaacat tcagtccact tcccatagag 60 ggcacagagc ttcttttgc ttttatcttg aatgtagcct tcaactttgt gtaattcctt 120 accaaaaagg ccacatggct taaaattcaa cacacatttg tccccagcct tgtggtttat 180 aatttccaca ttgccgtact gttcgatcca cagtttaccc acaatgatat tatgcacaca 240 gcaggtggga tttgtccatg tatatgcctc attgtgttca aggagctcca aggtgatggt 300 tcctttgggt tctgcttcta cactcttccc ccagaatttc agtttgggat agatagagcc 360

atgaaagatg aagtcattgt ttaatccttc agcatgaaat gcactgattg gtgggtgatg 420 gctgacctgt tcggagatga gtctaaatcc aaggtcatct cgcactaatt cataagtctc 480 tcccagcagt gggttgaaag gttttccagt ccgttcccac tgagaagcaa cagcagatac 540 agcaaacgca gctacacact ggattcnttt cacaggatcc gagagtgaac tggncctggg 600 gataaggtaa gatgctc 617

<210> 6490

⟨211⟩ 612

<212> DNA

<213> Homo sapiens

<400> 6490

gtagagacgg ggggtggggc tcctgctgtt gctgaggctg gtcttgaact cctaggctca 60 ggtgatcctt ccgcctctgt ctcccaaatt gctgggatta caggcatgag tcaccatgcc 120 tggccagcaa caatttgtgt tttgagaatt aacctgagcc atttcctgaa gctacctaca 180 ctgccattcc acagttggga atatcttcac gtatctaccg gctagggaag aatctggggg 240 cagaaatcac cttattccag agcagcaatt tagacgacgt agtaggagtt tgtagggaga 300 tgttaaccat aaggaatttt cctattaaaa tgagatgaaa aaggggaatc cctctgactt 360 ccacgattat aggcatcagt gaccaaattt taacctggaa aaggcattca tggatcagtt 420 catgctcctg ggcagaattc aatattgaac atgattccta gctattgatt tggtatctgt 480 tctgcagaaa tgtttgaatt tctcaaactc aatccaaagc cattgcctga acagcttcct 540 600 atgtcagaga ctaagcncag atgggttcca tcaaccacac gtgaccataa tgnttttcac aggtcacagg aa 612

<210> 6491

<211> 608

<212> DNA

<213> Homo sapiens

<400> 6491

atttttatt ttttattttt tattttgaga cagggtctcc ttctgtcatc caggctagag 60 120 tgcagtagct ttttcctggt ctatgtaatc cagaccagga aaaagccctt tacagccagt 180 gtggcatggt ccagggcagc tctagctgac gttcaccaag gggagatcct actttgctat ggtagggagg atttgggata gacatttgca gcctgcactt ctagggaacc tagtggatga 240 300 gtgactaggg agatgacagc catggctcag atggaacata gtcctgccta cgggcactgg 360 ttgggaaaat gggtttagga agcctgggag gctggaaggc tctagggtgg ggctgcacag 420 gctctgggta tcctatctcg ggccttctcc agggcatgtg ttgctcagga tcctagccct 480 ggcttatccc tcctcaaggg agttaataaa gtggaaagaa atgtggctct tgccaagagc ccctggcagc ttancaaatg ccattgnctg ngctgtgtcc agtgcccttg atttgangct 540 ggtttggtcc cagcccaaat cagccctttc attgccagct tttccacttg cacttgnacc 600 608 aaagcctg

<210> 6492

<211> 553

<212> DNA

<213> Homo sapiens

<400> 6492

gttgagatct gaagtttatt ttgctgtgca actccttttt tggagtttta cttgcttcca 60 acaaggaagg caaattttcc tgcgtccatg atgatggaag gcaggtaact cctttctgga-120 gtttgagctc gtttccagca gggaagatga gtttcagttt tttcctgctt tgtttttgtt 180 240 gttgttgttg ttgctgtttg tttctgtttc ttgttgtttt catctttttc ccattgggtt 300 tgaccaactc tatccaactt gatcaaatcc gaaggaaaat tccaaattat ggagaacaag acctetgaat tggetaaatt eetgeaacet getetgteta ggeaagaaga aataaatetg 360 gttaaaagat ttaacaaaca tgatccaaaa gccaaggcaa gtataataat taatagtgga 420 480 ctggccagag gaaggagatg tgagccccaa attagcattt tgactangcg ccccatgact 540 nanacagetg tggcatatet tatgggccaa teggetagtt ttttgggggn gateettaet 553 aannccgttg ggg

| <210> 6493 | | | | | | |
|------------|------------|------------|------------|------------|-------------|-----|
| <211> 556 | | | | | | |
| <212> DNA | • | | | | | |
| <213> Homo | sapiens | | | | | |
| | | | | | | |
| <400> 6493 | | | | • | | |
| acaatataat | ctgttttatt | ttacacttct | ctgattattg | aaatctaaat | agaggttttt | 60 |
| gctaacaaac | aaaaaggaaa | ataaaaagac | agcaaggaca | cgattaaatg | ttgagtgcag | 120 |
| atgaagggtt | gtatgaggcc | ccatcctggg | gaggctgtac | accttcttgg | cacagcagca | 180 |
| gtgtggccca | cggagcttga | acctggtgaa | gacagcaagt | aagccacagc | tcaagagttc | 240 |
| tgaggcttgg | gaacagaaaa | gagctccttc | ctgctccacc | ccaatctggg | ttgcatgggc | 300 |
| atggaaaaga | gcaaacacac | cctgcaaagc | atactggaca | tgcctcttct | ttaccttctc | 360 |
| aggccagaac | accctcctct | ccacaaacgt | gtgcacactt | gcacgctcat | taagcatgtg | 420 |
| cacacatcat | attcacacac | tcaagccatg | ctcttgattt | cagggctcta | ttgcangctc | 480 |
| aggtatcaac | cccagaaccn | angtgtgtga | aaactccnta | gcagactnac | aaaaagntac | 540 |
| tgganaagca | cggggt | | | | | 556 |
| | | | | | • | |
| <210> 6494 | | | | | | |
| <211> 552 | | - | | | | |
| <212> DNA | | | | | • | |
| <213> Homo | sapiens | | | | | |
| | | | | | · | • |
| <400> 6494 | | | | | | |
| ccgatctaag | atggtttaat | gtcttgacaa | aaagtgagat | gacttataca | ttttacattt. | 60 |
| tgtacattta | gatcaccata | tgtatagatg | ttctaatgct | gaatccttgg | tcttcagtat | 120 |
| ctcatagtgc | tggatgctcg | gaagtatgac | aaaaacttgt | aacacagact | aaccacaaag | 180 |

300

taccagatat ttcttgccat ttgtgatctt gcaataaaaa tgcgccagat gaggatcaca 240

aggatagtat taaaaccata acgtatattc cgcaacttgt tcagatgttt tctggctgca

| gggaggccag | acatttcttc | attcaatacg | tacttcttag | ttcccaagca | gtagttctct | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| atatattctg | cccaatgtaa | ctgccgtaca | tcaatattga | aggtcttttt | atcttcaggg | 420 |
| tttaagttga | ttcattaaca | tattgacatt | ctcaggtatt | ncaacccaag | aattacttgg | 480 |
| gaaatattca | agaaacacca | tagctttggt | gaaaaccaag | ttattggttt | catcatcctg | 540 |
| nattggaaga | aa | | | | | 552 |

<210> 6495

<211> 558

<212> DNA

<213> Homo sapiens

<400> 6495

| acactctaca | ctctattctt | tattctggta | cagctcagca | tggatttcag | ctcctactac | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| aaccgggtac | acatcctggg | ggtgagcaca | cagcaaaacg | gggtgggacg | tgcagagagg | 120 |
| tatagggtaa | aggcagttgc | tgggtaccag | accaagagct | ggttggaaac | agcacctgcc | 180 |
| actatggtca | gctccttcca | ggcgtctcca | atcaggcagg | ctgaagagag | ggtgcacctg | 240 |
| tctgtgcagg | gcacctcttg | caggatgcac | cctactacag | ggtcatatag | caccactgag | 300 |
| ttgtggccca | gggccaaggc | tatatttccc | tcaagccagc | gtgcatccca | aatccagtca | 360 |
| gacatgttcc | acaggccaga | gcgccaaagc | tcccagaagt | ggccctgtcc | ccagctaatt | 420 |
| ttcacaactc | ggagtccctt | gcttccaaac | acagccacca | tggcctcaag | tcaaggtctc | 480 |
| cattaaggct | tctggncgta | cccggaacca | tgggtaanat | agtgggccan | cagggtctgn | 540 |
| actcgcttta | tnatnccn | | | | , | 558 |

<210> 6496

<211> 556

<212> DNA

<213> Homo sapiens

<400> 6496

gcatcaaatg ctggttttga aaatgtaatt aagataaaca aacagtagaa aatacataat 60 ggagtgcata ctggaatata gttacttagt tttcgaaaat gaaaactaag ggttttactc 120 aacactttat aaagtagatt gtctttttca acccaaattt ttgtgaaatg agactttcaa 180 agtcagaaat tccaatttta aaaatattaa actaagaaaa tccttaaatg aaactaataa 240 aaagtcatga aatatagcta tacaaattgc cttgtgaaac atcatcacat ttctctaaaa 300 ataattetat ettetetaaa aataatteta tettatggat tigggaaaaa aaatetaaga 360 gtaaacatca aaaattagtt ctcagctgta aactgattag agagggaaaa tcagttcgaa 420 ttaatattga ggatgaaaat gttgattata ccgttgagaa aacgagtgct ttggnccctg 480 gatetetaag etgnatttea teagaagtet geeceagntt teaetttgna aaanggntgg 540 556 cctttgacac accccc

<210> 6497

<211> 559

<212> DNA

<213> Homo sapiens

<400> 6497

attgntaata atttgaagat gtttattgca ttctattttt ggtgggaaaa aaatgtaaca 60 tacatttatt tagcacgaca ttgtgaaata cacaaaacat gtaactgaga aagcaggaat 120 tttctattcc tagtccattt ctgaggacta aatcatgaac tgctcccaat gtaattaaat 180 atttettaea atagttggge accaagttta agatttatta atttteeet eteagtatag 240 geageaatte accattttet tteagtteet teacaatate caateeteec accageteec 300 ctttcacata cagctgaggg tatgttggcc aatttgagta agcttttaat ccttgccgaa 360 cttcttcatc ctccaatata tcgaatgttt catattcaac accagtacta tttagtattt 420 ccagaatttg tttgctgaat ccacattttg cttcctgttt ggttcctttc ataaagagca 480 tcacagaagc tttatttgtc agcactttga gcctttcctc taatttggga gctttnggac 540 559 aaatggatct aggtcttca

<210> 6498

<211> 567
<212> DNA
<213> Homo sapiens

<400> 6498

aaaggcaggg gactctcaag aaaatgatga atattattat ttctttgaat tcttgaaatc 60 aacataaagt tgtgtgattc ctctcctcct acccccaatt ttagcataac tggtagtaat 120 ataaaagaac tagctctttg ctaactgtgc ataagaaata attttttccc cagaaatcag 180 aaatgaagac aagtgccaca catcattgat cgccccaaca tggattttcg cacaaaagaa 240 atacagctac ccagtatgca gtttacctga ctgggagaaa aactgggatc gtcgccaaga 300 gttctgaact ctaagcggaa cactggcagt gccaggcgac tctagatcag atggcagaac 360 agaacaaaca gaaaaccatg aaaactgggg tgagaactga atagaaccat gctcccaagt 420 actataggga gtttnggctt ctagtcaaat nccagaaatt gagaagtcag taaaatctac 480 nggtccaaaa atgtcttaat aaccccacnt tttaaaaaacc tggaaggaca ttgttccaaa 540 atcaacngga acccggacng gtttttn 567

<210> 6499

⟨211⟩ 555

<212> DNA

<213> Homo sapiens

<400> 6499

gaaagctgaa aatttatttc actaatatac ataagaagtt cacaacaatg aacagacaga 60 aaatagcagt atatacagaa tttcactact tacagtacat tacaatagag aaagcatttt 120 ataaacagtt cagtattgga ttaaaatctt ttaaggatgg ctaattctat tacctaatta 180 aattctatac ccattattca aggtttaatg caaatctcgc ctcatcaatg aaattttctt 240 atttcctgg tccaaattga actcctcttt ctctaagctt gtacagactg tattctgtcc 300 aaataaatta ccaataaatt aggtattgct ttatattact gattaattca tccatagata 360 ttattagatt ttaatcctag tctctcctac gagatagtta agattctttc acagctccag 420

| tccatctccc | atgcaaatta | aattaacaaa | tgcatacagt | atatacatct | gttcacttga | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| aatcttttgg | aggccaagta | gtcaacaaan | ggaaggcata | ttacatagtt | tgactatgca | 540 |
| ctccgcaaaa | caaat | | | | | 555 |

<210> 6500

<211> 554

<212> DNA

<213> Homo sapiens

<400> 6500

| gaagtcggtt | agcactttat | ctgcaccgct | cctgtggtac | taacactcac | caccttttat | 60 · |
|------------|------------|------------|------------|------------|------------|------------------|
| tacagttatt | tgtatcttct | gggggttctg | acttagaagc | attcgctcat | gatcccttga | 120 |
| gaggtttatg | actgaatgcc | taatttatct | ctgagtcctc | taccttgcac | tttaccttgc | 180 |
| acatacaggc | cttcggcaaa | tgtttgctga | atgcttggat | taatgaatac | acttctgaac | 240 |
| ccacccaaga | gggcgccagc | agggacgtgc | ccttcccggg | tgcctaatgg | gacgctgttt | 300 ⁻ |
| ctcaacagga | cccccatca | tctccagcac | ccagacccag | cacgccctcc | acggcgagaa | 360 |
| gggccagatc | aagtgcttca | tccggagcac | gccgccgccg | gaccgcatcg | tgagtgctcc | 420 |
| agggacggcg | ggcgggggcc | gggccagcaa | gcccgacagt | cacttttgcc | aatacctggg | 480 |
| tggccagcca | ggcngtgcac | accttcgang | gtnctctttt | ttgntgnggg | aaaatttacc | 540 |
| nggccttggt | ggtt | | | | | 554 |

<210> 6501

<211> 545.

<212> DNA

<213> Homo sapiens

<400> 6501

gagatggagt ctcgctctgt tacccaggcc ggaatgcaat ggcacagtct tggctcactg 60 caacctctgc ctccgggtt caggcgattc tcctgtctca gcctcccgag tagctggaat 120

cacaggcgcc cgccaccatg cccagctaat tttcgcattt ttagtagaga cggggtttca 180 ccatgttggc caggctgatc tcgaactcct gacctcaggt gatccacccg cctcggcctc 240 ccatagtgct gggattacag gcgtgaggca ccgcatccgg ccaagactcc ttaggtctta 300 gagcaatcta aatgatcaat aatgcccctt gaatgtgtca gtatcaataa gtctctgatt 360 420 acacgcacag agaataaaaa gtgtaacagg ctttagtgaa caagggttcc aggcaatttc tatgaaggcc caatacctac aataacctag taacagcaga tccaatgttc acagaaaaac 480 nattaaataa ttcccactgn actggggaaa cttggcttaa cagcaaacct tctnccaatt 540 545 gtttt

<210> 6502

<211> 412

<212> DNA

<213> Homo sapiens

<400> 6502

atatatatte attgacetet geetttaett ttattattta etteeataeg ttttaetgtt 60 gttgttttaa aattttaata eetggetete ttaetagett tttgagttga acacteagtg 120 taactaattt ttggeettet tgattttata teaatatatt eatggetttt aactgeteee 180 tagateegtt teaataggta aggetetaag eattgaattt tetteettet agettetaag 240 agtagttte tatteeeaa eacatgteat tetaettgte ttetaateet tgatttettt 300 etttttttgg eattgtggte agagaatatt tgtataaatg attatgatta tttggattte 360 aaaaagattt aettaaaaat eettgtggae aggtaeataa etaeatttta tg 412

<210> 6503

<211> 562

<212> DNA

<213> Homo sapiens

<400> 6503

ccagtttctt ttgcatttat tgcaagaaag ttaggtatgt ttgacaatac acatttttga 60 agtacatact ggttataaac aatgtattcc ttacatatta taactacata tacaagtatg 120 gtttttaaat gatgaaatcc aattgtaatt aatctatagg gaaagcaatt caagaaaatt 180 cgggatactt aaatgttcag cctttttaga tgtgcaagag gactcctatg agacactttt 240 300 gggacagact aaattgcctg aagataatgc catggcttct cccagtgatc cctgagtttc 360 ttttcttctt ctttttttt ccccatagtt tactgctgtg cttaggttct gattgatgac 420 480 acactcacgt aaggcactta tttacaaggt atggacttaa aacnggaatc acagcatttc tgcgaaagcc cttaaactnt tcatctatgg ttggctggtt cangacnttt taaataggca 540 nggtcancat ggaaaattan ct 562

<210> 6504

⟨211⟩ 552

<212> DNA

<213> Homo sapiens

<400> 6504

60 120 tctttttttt gaggcagagt ttcattcttg ttgcccaggc tgcagtgcaa tggcgcgatc 180 ttggctcacc gcaacccctg cctcctgggt tcatgagttc tcctgagtag ctgggattac 240 aggcatgcgc caccacggct ggctaatttt gtattcttag tagagacaga gtttctccat 300 gttggtcagg ctggtctcga actcctgacc tcaggtgatc cgcctgcctc ggcctcccaa 360 agtgctggga ttacaggcgt gagccaccac acccagccta gacttcagtg tttctaatct 420 ttattcctca gaggcagata tgaattttgg acaaagtttt ggccaatttt ggatgtaact 480 ggactttggg gaaaggacct tettentnea ateaetttaa teaggaataa ttatttaaca 540 aattaatcca nc 552

<210> 6505

<211> 558 <212> DNA <213> Homo sapiens <400> 6505 60 acattatece agaaaacaga ataaatgget ttatttggta tetteaagaa getteteett ccgtaggaga tgtaggtgtt gtgggagaaa ctgtaactgg ttttcgtgta attctgtcta 120 180 gttctgcatg aacatctaag acaggcttct ggcctgactt tttggtggat ggtggtaaac 240 cactgcttcc acctccagcc ccacctgcag ggctaccacc actcacacca gggcctcctg 300 gagagccagt ctttttactc aacaaactgt tgaagaaatt tgccagaacg ccttcacttg tagctccagc tttcatgttt ggatcaattt tttttgaccc agcaggaatg ggtgacacgc 360 tggcaacatt agatgataca gatctatttg gtgttcgtgg ggagcctcct gggactcttg 420 480 gtgaggcatc cacaggcctt ccagctgcaa gttggtggtt gctttgctaa aagggactgt 540 agcttcataa gaaacacctg acatcttctg gcataaattc cttctcatgg ncaaactttc 558 gaacaggngg ntaanttt <210> 6506 <211> 562 <212> DNA <213> Homo sapiens <400> 6506 ggtttaatgg tataaaacac aaaggtttac agtgagcaaa gcaaatttct gagcagagac 60 ttctccaccc ccaagcccct cactaagggc agccagacct gttataaatg gaaggcacaa 120 aatcaaactc atcccgaccc agggaacaca gcccactcca gggccaaacc tgcagagtcc 180 aagagtgaca gccagtcgtt ctggctccag gcaccacttc tccctgagcc cccaactccc 240 acgagcaatg ccgagttcag tggctaaaag aagcaacttc aggtttattt acggagaaaa 300

360

420

gcctttgcca cggctgcgga aggagcccgt tggccagagt gtgtggacat caacgttacg

cgaatggctg tgcgtgccaa tggctggtat aaggaacttt taaagtcctc aggttaaatg

| aaaaactctt | gtggagctct | tcactgcacg | atcttggtat | ggtttctacc | ctggttaagg | 480 |
|------------|------------|------------|------------|------------|------------|-----|
| tctacctttt | cccatttccc | cacatttctt | tacatcgctt | ttatttactt | caattgcaaa | 540 |
| tcccganctg | gtttggtant | tt | | | | 562 |

<210> 6507

⟨211⟩ 562

<212> DNA

<213> Homo sapiens

<400> 6507

ctctctctct ctctctcgct ctctctttct ttcttttttg gagtgttgct gcgatgccca. 60 ggctggagtg caatggtgcg atcttggctt accgcaacct ccacttcctg ggttcgagca 120 attatectge etcageetee tgagtagetg ggagtacagg cacaetecat caegeecage 180 taatttttgt tttagtagag acagggtttc accatgttaa cccgactggt ctctaactcc 240 tgtcctcaag agatctgccc gccttggcct cccaaagtgt tgggatttcc ggcgtgagcc 300 actgtgccca gcctagaaat ttcttgaaga caggaattaa atttcataac tacttctcta 360 ccccaaaaag aacagcaggg ttactggtga gatataaatt tttcctattg ctattggatg 420 ataataagaa cgatgatgat tcaacccaac atgaaagaag gttggttngg atttccattt 480 taccacagca cttnaaggct ggattaaaaa agggctgctt ttnaaggtgg gnaccctttt 540 aaaggggggn tttncaatcn aa 562

<210> 6508

<211> 563

<212> DNA

<213> Homo sapiens

<400> 6508

accattaatt gttactggag aaaccctcct tctgggggtt ttgcacgatt attcataaga 180 aggtggaaag aagtgttagt gtaagcatgt tttgagtggt cttctgggtg cacatgtgca 240 300 ctaactgtac atatttgtgc atacattgca tgtctcgtta gcatcttaag tctccaccta ggaatgtgtt tttactatta aaatgagcaa aagttcagtt tgaggacaga taaaatcaaa 360 atgcacatgt tetetagaag taaaagteee taetgaagat agegggttte aaacgaceee 420 aagtgeteea catettaaat gteggetnea caaagetgga caetatetge tnetgaggga 480 540 tccggtccca tttggggttc tgagacctgc aagtcaggag tgacttgaga tganaccgtg 563 attcaagggt aaatgcctaa tag

<210> 6509

⟨211⟩ 553

<212> DNA

<213> Homo sapiens

<400> 6509

60 ccccatttaa aaatatetta cagnggcata actttecetg tacaaattgg gtttaagaaa caaaagggac aattngctaa tcaatgatga gcctttaatc caaccattat atatcccctt 120 tccatcctta gatcccttga agagaccatt tagttaagac taccaacagg tgacaccctg 180 acctecttae caacettgee ttttagaggt gaccagagae etgtgetttt ecaaagtaet 240 gttatacgtg taattagtat aatatcaatg tggggaaact ctacctttgg attitgagga 300 ctctgctttt cttgaaaccc tctgggttag agactgttta ttcatatgca cctcaggaac 360 ttgaggccaa gatgaagttc actgtttcct agtcctttgc ttgntctcct ggccattatg 420 tttccacctt cattcaaaag ccttctcttt ggaagctgnt tataacccag caacaccatc 480 aactcactgg gctactggcc tcaatcccat ttncaagcac tttccctttt catgcaaatn 540 atccaaaacc aac 553

<210> 6510

<211> 496

<212> DNA

<213≯ Homo sapiens

<400> 6510

| gcaattttac | agtaagtcat | accattccaa | actaaaaagc | ttttgtgaaa | aatcagtaca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| cgaatacacc | ggagtgtaat | gtaactaaga | gaccaccaga | ccaagaaagc | aaggcatcct | 120 |
| cccaggagaa | tgagggtgcc | ctggctggtc | tgccctcact | ccaacccgca | gacctgcgga | 180 |
| gcatccaggg | ggccgatact | caggtgggct | acccttggcc | ccctgcccag | ggctccctca | 240 |
| ggcaggctgc | ggccagcccc | tgcggcagga | ccacatcctg | tcccattccc | ctctccagca | 300 |
| ctacccacta | tgattaagct | ctcaaaccga | gtacaccatg | gtgtgtccac | gggtgagtct | 360 |
| acaggagggc | agatganggc | agggctgtct | ggctaaccaa | gtgtcactta | gggaacacct | 420 |
| gtcggatgga | ngcgtnaggt | gtcagatgct | gagcccatcg | ntggtcnaac | tgngcaaggt | 480 |
| ggggaanggt | ctggnt | | | | | 496 |

<210> 6511

<211> 542

<212> DNA

<213≻ Homo sapiens

<400> 6511

| ccttatcact | ttggttaaat | gaatgactta | ttttacaatg | acctatgatc | ctatttcatg | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| gtatcaagtc | ttttaaacct | ttgatatttt | acaaactttc | caaaatcaat | ttataaattg | 120 |
| tcttttcctg | acctaattaa | tcctttaaga | tattaggtcc | cctaaagtcc | aaaaatgaca | 180 |
| taatttggct | tatttggtat | aaaaattaga | cagggagcat | tgtcaaatat | gaaatgatgt | 240 |
| ttggttttct | ttgggctata | tttgtataaa | tgttattggt | atgtgttcca | aaatgatggg | 300 |
| aaactcctgt | aattctgatt | taacttagtg | aacgttatca | gtaattgtaa | ttgtgntaaa | 360 |
| ttattgngtg | ccacagaggt | acacatttgt | caattgggtc | ttggattatg | gctgncctaa | 420 |
| aattttggca | tccatggaca | atggtggctt | ggttgggcct | tttanggggt | ctatatcact | 480 |
| atgggactna | acaggggtct | taaagccagt | tctgaacctt | gcaatgggcc | ttgaataagg | 540 |
| gg | | | | • | | 542 |

⟨210⟩ 6512

<211> 528 <212> DNA <213> Homo sapiens <400> 6512 gagatggagt cttgctctgt cgcctaggct agagtgcagt agcgcaatct cggctcactg 60 120 caaactctgc ctcctgggtt caagtgattc tcctgcctca gaatctggag tagctgggat tacaggcatg taccaccatg cetggetaat titigtgtgtg tgtgtgtg tgtgtgtgt 180 tgtgtgtgtg tgtgcgcgcg cgcgcacgcg cgtttgtgtt ttagtagaga caaggtttcg 240 ccatgttagc caggctggtc tggaactcct tacctcaggt gatctgcccc ccttcggcct 300 cccaaagtgc taaaattaca ggggtgagcc actgtgccca gccggattat catttcaaat 360 gctcatttcc agatggaact atgttaattt ggcatgtcaa caaacaagac cataagtaga 420 tccatcatgt tggaggattt taatgacatt taggatattc ttgccacaat aacatgcann 480 528 cagggcattt nctacanggn tctattatgg cnatgaataa actctgna <210> 6513 <211> 553 <212> DNA <213> Homo sapiens <400> 6513 ccaattaaat cttttctttt tttttatgaa aaaagatcac acagaatttg ccaacaaaca 60 aaattccaaa agaaacataa aaaaaaaaaa ccaataattc ccccaaaaaa caaacccaaa 120 gtctggcttt tccttccctc aagattgtct ggttgaggcc ttggtttccc ttgaaggctt 180 240 ggggcctggt taagtgcttt ctggggccca agcagggacc ctgggcttgg gccggctcct 300

360

cttggcgggg tgggcgggg gtgtgctggg gactgggagg ccggtgaagc cggtgctaga

| cactataatc | taacaggaaa | taaaaaataa | tattctgcac | gtcagaatgt | tttttttta | 420 |
|------------|------------|------------|------------|------------|------------|-----|
| taattcatag | ctatttttca | cagttttaaa | aagttatata | tatattnaaa | tatattaacc | 480 |
| ttatatatnt | aattaaaagg | tgactccntt | aaaggntatg | atcagggccg | ggccagtnnt | 540 |
| tggacaataa | acn | | | | | 553 |

<210> 6514

<211> 500

<212> DNA

<213> Homo sapiens

<400> 6514

| gttcagcttt | tactggaaac | tgctgtctag | gaccacctgc | cctaaccagg | aataaaggca | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| agacagcctg | gagaccagtţ | tgtttcttca | gctgcaaaca | gctgcctggg | caggcaggtg | 120 |
| acacaaggcc | tctgtcccca | gggatgggac | ctgcagggtc | tgttcaccca | gggcacccac | 180 |
| agtcctgaag | tgcaggccca | gggtctgtcc | agctgggaga | gggcagaggt | ggcggctggg | 240 |
| tgagttgccg | gcctcagctg | ggggcctggg | ggaggccctt | cttcagcaga | gatgtgagga | 300 |
| agctccccag | ctcctcgtcc | tggtaggtcc | aggagaccag | cagcaccttg | gtgcctgggt | 360 |
| cctcanaagg | ggcggcggcc | tgganganga | cggacttcac | agtcacagaa | ccgtctggga | 420 |
| ngtgcttgca | cacaatgggc | ctttaggacg | ctcttgangn | ggcttgtana | accencaatg | 480 |
| gccgnttctg | nttccttgcg | | | | | 500 |

<210> 6515

<211> 551

<212> DNA

<213> Homo sapiens

<400> 6515

ccttgtctgc agtcatgagc ctattgaaaa aggcctacag aagtaaatct ttcaaggagg 60 taatagggag atgtatttt ttttaaagaa gtgcagttga tatctaattt acacagtgaa 120

actaatgata gaaaataact aatgaaaaaa aatcagagac tggtttccaa ttgattgaca 180 cctagatctg tcagcctctc ttaaagaaag gggaaggaga aaaaaaaatct catcatggaa 240 ggcagacaag agtccacctg acagaggtgg aatctgatgg aatctgaccc catttcatga 300 taaacgagag gaaacataaa tgccatctca aatactaaag cgatgtagtg tagcatgagt 360 gactcaatgc aaattcacag aggaaaagaa gttcggctta ngaagtagga caataaatac 420 aaatatttca tcttatttaa tggtgcatga cttcagtgaa actccctttg caatgcaata 480 540 aattttaaac accaaccttt attcttaacg gttttagcca ccgnttttgn gagagaaaac 551 tccttccaac a

<210> 6516

<211> 548

<212> DNA

<213> Homo sapiens

<400> 6516

60 ggagggtgtc tcgctcggtt gcccaggctg gagtgcagtg gcgcaatttc ggctcactgc aagetetgee teeegggtte aegecattat cetgeeteag ceteeegagt agetgegtet 120 acaggcgccc gccaccacgc caggctaatt ttttgtattt ttagtagaga cagggcttca 180 tcatattagc caggatggtc tcgatctcct gacattgtga tctgcccgcc tcggcctccc 240 300 aaagtgctgg gatcacaggc gtgagccacc gcacccggcc gggttggctt tttaaataac 360 agctetgtaa tgaagtaete ttggteaagt agatacagea ggateeaaaa ceagttaaat 420 cactaactgt gaacatttga gcaaattatt taccctctct cggcctcagc tttcacatct ataaaatgag agcacaaatt attcacagct tttgaaaaagt tactgntgag aatattacng 480 540 tgnatttgtn aaccagctgc ttatgccaaa agcctggcac aatagtaggn ccntaaacaa 548 nggttggg

<210> 6517

<211> 550

<212> DNA

<213> Homo sapiens

<400> 6517

gttttttgag acagggtaga gagtcttgct ctgttgccca ggcttgtctc aaacttctgg 60 ggtcatgtaa tcctcccacc tgagcctcct gagtcatggg attacaggcg tgagccacca 120 caccaggett gaaggtaaat ttaatggggg agtgggtace teeatgeeat teacettaaa 180 accagtggaa gtgacttctc aatcccttgt ttggaatcat ccatgctagc ctgtgcctct 240 totggtaggg atatttgaga atttcaaaca taaaaggttg tootagactt tottcacccc 300 caaaaaagta cccaacaagg ttagaaaaat acaagcaaag tcagtaaaat aaatacaaga 360 tgtgtccctt gggattcaac caacacat tgtttcctag ccaaaggcag agggtgagcc 420 accacctgga tgcttcgtct gnttactcag accctgctgn ttctttcacc ttgtggcttg 480 gatcccttca tggccaatta cccaatttgg gnacttaagg caanttatgc nntggatcaa 540 àancttttt 550

<210> 6518

⟨211⟩ 523

<212> DNA.

<213> Homo sapiens

<400> 6518

gcattattta agtaaaaagc tttatttttt tccctcagtg tctgaatctt ctttattgnt 60 taccaggatt catgattcct tttgtaactt gttctcagtc atttattcag ttgagtaatt 120 acacttigic agacaaatat ctaaagttit attatgtaac tigcagatti tcaggacgag 180 tgaaggagga aaatggcaga agagttcagg aaagacaaaa atgcaagact gngtctaagt 240 ttatgcctct cttgágtttg atgatccaat tttaatttaa tcatttgagt atctcttagg 300 gattetteet eeacagtgga ggaaagtggg etetaetgaa tteattggaa eacegeettt 360 aaggagaaag aaactttgac aatagacgct ttttcaacaa ctactggcaa tggtttgaaa 420 ggtgtcattt ggttcagcta gataccaagg ctgaanagtg ccttctttnc aatgatccat 480 ggttactggc gcttttaaac ncattcctaa aacttagaaa ctt 523

| <210> | 6519 | |
|-------|------|---------|
| <211> | 541 | |
| <212> | DNA | |
| <213> | Homo | sapiens |
| | | |

<400> 6519

ggtttttttg ttttttccc aacatcttgt atctttaata acatacacaa tggttaccag 60 ccatattcat aacaaaagtt attcataaaa tgtatctaaa aataacattt tttttccttt 120 tcggtgtgaa aagcttgaga atgtcccagt tgggaaggtg ggttgagggg gaggagggcg 180 ttgaagaggg agaccetgge tteccegeag tetgaaceee caaateeeet eeetecaeet 240 300 gggccccaac acaacccctc attaggaata gggaccagac agtctgtcgg actctggggc tgggacgaat ctctgggtta tgatatagtg ttccacttaa gtgaggtcat gacataatgg 360 gggaaggaaa aaggctgaaa gaaaagggag gggcttaggg aaaaacccaa aaaccaaaca 420 atcccctttc ccttattcct gactnccaag tctnaccaac cagacctggg aacgganaaa 480 ggtgtgttt cctggggaag gggaccttta ggnacagnan ttctgactta ctggntaccc 540 541

<210> 6520

<211> 548

<212> DNA

<213> Homo sapiens

<400> 6520

ggctgttaac attgttttat ttcctttata caaaaagtag aaatgacaga aaaaacactc 60
ttgacagaaa caataccact gacctgatct catgaaggag ctgagccaaa tctgcccaca 120
ttatggggaa agggaggttc aatcaacatt agcaaatact catgcaattg atgaaatata 180
aaatggtatc agtggcttgg tgaatgtcct gtgggtaggg tgaatcaatc tactcttaaa 240
aaacatacat tttcccaatc atgcttttaa acggcatctt ttaaaaaaac aagttatata 300

| tacagatatc | accccaaaat | gaatctttta | cagtctacta | ctataaattt | aaggcatcct | 360 |
|------------|------------|------------|------------|------------|------------|-----|
| gatattctgt | tcttctgctg | gtgaggcatt | ggtttcatgg | ntctctttcc | aaagangata | 420 |
| gtccagaaat | ttncaataat | ttncaaangg | gatcagtgag | aggaaattta | aaaaggggat | 480 |
| taccaggaag | aagtcttttg | gctttgctta | acaatgggcc | ttaagcctgn | aggattcttc | 540 |
| attttctn | | | | | | 548 |

<210> 6521

⟨211⟩ 532

<212> DNA

<213> Homo sapiens

<400> 6521

| gaagtccgaa | ggttgtcaaa | ttcagaaaag | tcatctttaa | ttgtaccatt | cagattactg | 60 |
|------------|------------|-------------|------------|------------|------------|-----|
| aagagctcaa | aggacccaga | gacagacacg | ggcttggtgg | tggagactgc | gcccacgcg | 120 |
| tcagaagctc | ttttcccagc | actggaggca | ggctgctgtg | aagctgccca | ggggtccgag | 180 |
| ttcttgggga | cagattgtgc | ggtggctcca | gtgggcaccc | cccatgggtc | aatggaggca | 240 |
| gctggcttgg | taccaaacga | tggccagggg | tctgaagtac | tcgcaggagc | cgctggcccg | 300 |
| ccccaggggt | tggtctggtt | agtggaggct | gacgggcccc | agggctctgc | tttctgggcc | 360 |
| cgcggggccc | gagctgggga | gagcatccat. | taaatccaac | agcgtaatct | gctgtgggaa | 420 |
| aaaaccatgc | tctttctttt | ttgggaattt | aactggggcc | ctttggnttt | ctttcaaggg | 480 |
| catctgnaat | ctganggcat | taacccgnct | gaagnngtct | ttctggttaa | nc | 532 |

<210> 6522

<211> 540

<212> DNA

<213> Homo sapiens

<400> 6522

gactggggaa gtccttctgc attaattaca ataagtaata ctcattgaaa actttcctta 60

agatttette agttagaaac aaaaacteaa aacacacgea ateetaaaga acteatetat 180 gteeceetta teteecetea tettatgtag teectaaaac agggettget geeetttett 240 ettettgeet teteagaag tgagteaagg ttgeagaggt ggeagteaac catagagtea 300 cagagtttga tetteteea teeateaggt egtagaagget geeattgagget ettgeagagg ttggtaece aaaatgeaga atgaattagt ttgaatgagg tgattaagga ttaatgagta 420 gtggttaagg aaacaaagae cattagtgga tgggggaaat attgetggat taetggtgga 480 agenggatet nttaaaaaac nttntgnagg enttteetae ntaeetttta aggggteete 540

<210> 6523

⟨211⟩ 523

<212> DNA

<213> Homo sapiens

<400> 6523

gcatatataa ataacattta ttaacttagg ctgtacaata tattgattta gtcaaataaa 60 aaataccgta cacaaaaatt gaagtaaaat ctgtaagatg ccattcagac tgaattttat 120 attetgaata agacaaggga etgecattea ettaaageaa aatggeteea atteegttta 180 240 300 gctctgtcac ccaggctgga gtatctatct atttatttat gagataagtc tcgctctgtc 360 acceaggetg gagtgeggtg gtgeaatete ggeteaetge aacctetgee teceaegete aagcgatgct cctgtcccag cctaccgagg agctgggatc acaggcatgc accatcacac 420 ctggccaatt tttggatttt taggagaaaa nggggttcac catggtggnc aagctnggct 480 523 tgagcttctg acctaggggn tenececaet tnggetteen aag

<210> 6524

<211> 526

<212> DNA

<213> Homo sapiens

<400> 6524

aaggatttcc aactaggttt tattttagtt tccaatatta tgagcaatga tacaggagta 60 actcaagcaa atacatcacc ttaaatacat cagagaaaac tcactgtgtc agcacgtctt 120 180 gcgctccagc aaatgaacat aaaaacaaca atgtcagcag cattaaagtg cttttggcca tacttctttc agaaagggtc tcccgggtga cgtcaacttg ctgacacaga tgagcaaagg 240 300 teccagacag tiectgetgg actiggtgge tgeagtigga gecagtgtag etgatgaeaa gctgcagctt ctcgctggca tgctccacaa actggcgctt gaaggccctc tccttggcct 360 tggtggtcca ggtcagacgc tcatagacgt agaggaggcc atagagccca aaggagaggg 420 caatgagccc gncagcccac tggctttcac accacttctt caacaacaag aatgnccatg 480 526 ganggecetg gatgteaagg angnenagge eggtaacent tgggaa

⟨210⟩ 6525

⟨211⟩ 541

<212> DNA

<213> Homo sapiens

<400> 6525

gagatggagt ctcactctgt cgcccaggct agagtgcagt ggcgcgatgt cggctcactg 60 caagettgge eteccaggtt cacaceatte teetgeetea geeteegtg tagetgggae 120 tacaggtgcc caccaccacg cccggctaat tttttatatt ttttagtaca gacagggttt 180 cactgtgtca gccaggatgg tctcaatttc ctgaccttgt gatccgccca cctcggcctc 240 300 ccaaagtgct gagattacag gtgtgagcca ccgcgccagg cctccttctg ccattttaca aatatgaacc tagcacagta ggtcctcaat gagagtctgt tgaattactg aatgattata 360 420 atgetgntte tagttteete acagttetga tecetttgte etaaatacae tecaatttgg 480 ctttattctc tcaaaatcaa atggagcaaa atctatagta aggattatga tttattaaac ccccaaatct aattcctttt cagnetettg aactttttca aatccatggt tgggaagggt 540 541

<210> 6526 <211> 470 <212> DNA <213> Homo sapiens

<400> 6526

60 cctcctataa atattttctt tttatttggg tttagaagtt gcaattttag gtactattaa cagaaaatac ataacaaaag cttcctaaca agtgaaaaaa ataattataa atgctggaaa 120 180 aattggcctc attaacatat ttacagactt ttacttaata catacgcctt tggaaattaa ttatctgaca tttatacaag catcaaaatt tccaaatcac tgagtagtga gcacttcagt 240 300 tctttattgt ctatacccaa atttgaaagt catttagttt ctgaaagtag aaatgacaag taacagaaat ggtcaatctg agatactatt gacatattgt tctgttcctt cgcctaaagg 360 tgcttctgtt gagtaagtgt ccttatgctt tctttnctct ttgctctgan cttcctgnag 420 cttcagaatt atgtttcgga ttncttctct ttnggnccca ttcttggngg 470

<210> 6527

<211> 564

<212> DNA

<213> Homo sapiens

<400> 6527

| agagtgtcaa | acatatttta | ttaaatattt | ggaagctatt | ttattgaaat | tagagcatct | 60 |
|------------|------------|------------|------------|------------|------------|-----|
| taaactcaaa | tggcttcaaa | tactagcttt | ctgaggaaaa | ctaacaagtt | agcattaaaa | 120 |
| tatttctaag | aaagagaaat | ttctattttc | atttggccta | atatettaae | agcaggcagt | 180 |
| taaagatcat | tacaaataga | tttttctct | ccagaagcag | ggtagtattg | gacatcccct | 240 |
| ggttactttt | tctttccttt | ctttttttt | ctgtgtgtca | ggagctgggg | tcatcttttc | 300 |
| tgtctccagc | ttcatggctg | cttcctgagc | agccagagtt | tccagcttta | ggcgctcagc | 360 |
| ttccagcaat | ttgnttctgt | actcttcccg | gatgtcgaaa | attttctgtc | gggcttcatc | 420 |
| taaggagtcc | tgcatttcct | tatcatatnc | aggacttnat | cctttaactt | caaccgntct | 480 |